DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1983

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE
COMMITTEE ON APPROPRIATIONS
UNITED STATES SENATE
NINETY-SEVENTH CONGRESS
SECOND SESSION

Part 3—Pages 1–732

Airlift Requirements
Army Modernization
Guard and Reserve Programs
Pay and Bonus Issues
Rapid Deployment Joint Task Force Readiness

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DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1983

THURSDAY, MAY 6, 1982

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The subcommittee met at 10:05 a.m, in room 1224, Everett McKinley Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Stennis, Andrews, Rudman, and Eagleton; also present: Senator Mattingly.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE AIR FORCE

STATEMENT OF GEN. JAMES R. ALLEN, COMMANDER IN CHIEF, MILITARY AIRLIFT COMMAND

ACCOMPANIED BY:

- **LT. GEN. KELLY H. BURKE, DEPUTY CHIEF OF STAFF, RESEARCH, DEVELOPMENT AND ACQUISITION**
- **BRIG. GEN. DONALD A. VOGT, MILITARY ASSISTANT FOR DEPUTY UNDER SECRETARY OF DEFENSE FOR RESEARCH AND ENGINEERING (STRATEGIC AND THEATER NUCLEAR FORCES)**
- **BRIG. GEN. ELLIS D. PARKER, DEPUTY DIRECTOR, REQUIREMENTS/ ARMY AVIATION OFFICER, OFFICE OF THE DEPUTY CHIEF OF OPERATIONS AND PLANS, DEPARTMENT OF THE ARMY**

AIRLIFT ENHANCEMENT PROGRAM

BUDGET REQUEST

Senator STEVENS. Gentlemen, this is the time scheduled for this committee to examine the airlift enhancement program of the Air Force and all that this program entails.

Acting on information developed in a mobility study, the Air Force has now proposed to Congress that 50 new C-5B and 44 new KC-10A aircraft be purchased over the next 5 years at an estimated total cost of $11.5 billion.

In addition, the information we have is the Air Force is not giving up the CX concept and wants funding to continue research and development on the C-17 aircraft.

The Air Force also has indicated that it wants to complete rewinging the existing 77 C-5 aircraft at a total cost of $1.5 billion, along with improvements to other existing aircraft.

For the upcoming fiscal year, the acquisition request for the C–5 is just over $1 billion, including $200 million for rewinging existing aircraft, and $829 million for KC–10's. The total for that part of the acquisition is $1.9 billion for fiscal year 1983.

We also have a request for $97 million for reprograming pending on the C–5 for the fiscal year 1982, along with a supplemental budget request of $219.1 million for the fiscal year 1982 aircraft procurement, most of it for C–5 and KC–10 acquisition.

SUMMARY TABLE ON AIRLIFT ENHANCEMENT PROPOSAL

For the record, I would like to ask the Air Force to supply a summary of the entire airlift enhancement proposal beginning with fiscal year 1982 and extending through the fiscal year 1988. We would like this summary to detail by appropriation account the total costs of modifying, acquiring, and operating the expanded airlift. We would like to have both budget authority and outlay estimates.

[The information follows:]

SUMMARY OF ENTIRE AIRLIFT ENHANCEMENT PROPOSAL

Attached are budget authority and outlay estimates of the acquisition, peacetime operations and maintenance, and required military construction costs for the 50 C-5Bs, 44 KC-10s, and Civil Reserve Air Fleet enhancement in the airlift enhancement proposal. Budget Authority figures are based on the fiscal year 1983 President's Budget and therefore extend only through fiscal year 1987.

AIRLIFT ENHANCEMENT PROGRAM COST SUMMARY

[In millions of dollars]

	Fiscal year							
	1982	1983	1984	1985	1986	1987	Balance	Total
Budget authority:								
C–5B Procurement (3010)	270.0	860.0	2,171.5	2,308.7	2,506.6	725.0		8,841.8
MILCON (3000)			75.0	83.0	91.0			249.0
O&M (3400)D			.3	11.9	54.6	113.3		180.1
KC–10 procurement[1] (3010)	120.0	823.0	813.0	820.0	557.0	105.0		3,238.0
MILCON (3300)			41.0	3.3	29.2			73.5
O&M (3400)			6.3	29.5	47.1	77.9		160.8
CRAF procurement (3010)			184.7	179.4	228.9	258.1		851.1
Total	390.0	1,683.0	3,291.8	3,435.8	3,514.4	1,279.3		13,594.3
Outlays:								
C–5B procurement (3010)	21.6	182.2	629.4	1,424.7	2,024.2	2,167.2	2,392.5	8,841.8
MILCON (3300)			13.5	51.7	68.3	64.6	50.9	249.0
O&M (3400)			.3	10.2	48.2	104.0	17.4	180.1
KC–10 procurement[1] (3010)	0	489.0	541.0	866.0	858.0	284.0	200.0	3,238.0
MILCON (3300)			7.4	20.7	13.0	18.9	13.5	73.5
O&M (3400)			5.4	26.0	44.1	72.9	12.4	160.8
CRAF procurement (3010)			14.8	92.0	158.2	198.1	388.0	851.1
Total	21.6	671.2	1,211.8	2,491.3	3,214.0	2,909.7	3,074.7	13,594.3

[1] Reflects multiyear proposal transmitted from OSD to congressional committees on 21 April 1982.

INTRODUCTION OF WITNESSES

Senator **STEVENS**. General Allen, I am happy to see you here, sir, with General Burke, General Vogt, and General Parker. We would like to put your statements in the record and have you summarize them. All the statements will be printed in the record in full.

I understand from the staff, General Burke, that you have a slide presentation.

General **BURKE**. Yes, sir.

Senator **STEVENS**. I will be happy to have that. We will have a day for hearing outside witnesses on this issue alone sometime before we report the bill to the floor.

Would you please proceed as you wish, General.

MOBILITY BALANCE WITHIN MILITARY FORCES

General **ALLEN**. Thank you, Mr. Chairman and members of the committee.

I welcome the opportunity to be with you today to discuss airlift requirements. I have provided a detailed statement for the record. In the interest of time I would like to highlight a few points from that statement which has been submitted.

Within our military forces we need a mobility balance and that balance needs to be considered in two fashions. First, we need a balance between the air and land combat forces that have to be moved in the event of a contingency or emergency and the mobility forces that are available to move them.

As I have pointed out on a number of occasions, the best trained 101st Airborne Division in the world, for example, is not going to be very effective in its role of deterrence or countering aggression if it is unable to fight outside the confines of Fort Campbell, Ky. And similarly, the best trained F-15 wing that one could imagine is not going to be very effective if it cannot fight outside its radius from Langley Air Force Base. We need a balance between our combat forces and the mobility forces which are required to deploy them.

In a second context within our mobility forces we need an appropriate balance between airlift, sealift, prepositioning and intratheater transportation resources. The key factors in determining that balance are the issues of time and volume.

Airlift, on the one hand, is responsive, it is flexible, but it is limited in volume. Sealift provides great volume, but is unable to get there in the critical early days. Prepositioning assists both timing and volume, but it reduces flexibility, and to some degree prepositioning also increases the requirements for airlift. The intratheater transportation, both air and ground, of course, is the mode which links together the other three, the airlift, the sealift, and the prepositioning and it cannot be ignored.

MILITARY AIRLIFT COMMAND READINESS

The Military Airlift Command deploys and supports the employment of nearly all fighting elements within the U.S. military structure. We provide airlift, aeromedical evacuation, rescue and recovery forces, global weather support, and audio-visual support.

The readiness of the Military Airlift Command today is good. It is good as far as peacetime exercises and minor contingency requirements are concerned.

Our command is composed of trained dedicated professionals who demonstrate their capability on a daily basis in exercise and in their normal business. We do, however, have deficiencies, significant shortfalls in the context of our ability to support a major contingency requirement. The precise nature of those shortfalls is scenario dependent. But in almost every scenario we have a significant shortfall in outsize capability. Secondly, we are constrained today by a lack of spare parts.

PERSONNEL CONCERNS IN MAC

Now, I have established within the Military Airlift Command several priorities to address these various deficiencies. Priority No. 1 is taking care of our people. I am happy to report to you that as a result of the support of the Congress last fall, which brought the pay scales up to relative comparability with the civilian sector, in combination with the state of the economy in the civilian sector, our retention rates today are very good and we have seen a substantial increase in retention rates in the last 6 or 7 months.

Regrettably, it takes time for those improved retention rates to result in a significant additional quantity of trained specialists. Today, for example, we are running about 85 percent manning in the sergeant, staff sergeant and tech sergeant level, the people who actually maintain and fix broken airplanes. That 85 percent not only has to take care of fixing the broken airplanes and take care of the maintenance function, but they are also used to train the younger people. So they are providing double duty.

We think it is extremely important that we maintain these good retention rates over a period of time so that they will result in increased levels of skilled manning. One of the foremost aspects of that, of course, will be to insure that we maintain comparability with the civilian sector in the pay scales, depending upon what the inflation rate might be.

PCS ENTITLEMENTS

Other actions which might be very useful include correcting some of the inequities in PCS, permanent change of station, entitlements. There is a great discrepancy between the military and civil service, for example, today. Dental CHAMPUS also would have a high priority among the people in the Military Airlift Command.

My second priority is to try to realize the full potential of our existing assets that have been provided to us—the C-5's, the C-141's, and the C-130's.

Substantial moneys were approved by the Congress in 1981, in 1982 and are proposed for your approval in 1983 to correct the spare parts deficiencies which I mentioned earlier. The moneys which were provided for that purpose in fiscal year 1981 were allocated to the long-leadtime items. In the case of an engine compressor, for example, the leadtime today is about 46 months. So we have not yet realized the impact of those purchases stemming from the 1981 to 1982 budgets. We anticipate that we will be seeing increased quantities and increased availability of spare parts starting in about 10 to 12 more months.

C–141 STRETCH PROGRAM

The C–141 stretch program has been a good program. It added 23 feet to the fuselage of the C–141 and also added a refueling capability. It has been a very good program and we will complete that modification program next month, and I am pleased to be able to report that it is coming through ahead of schedule and below projected cost.

C–5 WING MODIFICATION

The C–5 wing modification program is a very important program to us. It will add 30,000 flight hours to each C–5 in the fleet, an indispensable capability inasmuch as those C–5's are the only outsize airframes which we have in our force today.

C–130 FLEET MODIFICATION

We also are undertaking modifications on the C–130 fleet. That fleet is getting old. We are having problems with the outer wing boxes in some models and the center wing boxes in other models, due purely to age, and we have to fix them.

After doing all those things, however, there is indeed a major shortfall remaining within our overall airlift capability, a shortfall which is in excess of 25 million ton-miles per day as measured against the requirements in the overseas theaters. Accordingly, a decision has been made to recommend the procurement of the 50 additional C–5's and 44 KC–10's, for which very favorable cost options exist.

Those airplanes, once available and on the ramp, will add about 13 million ton-miles per day capability to the present airlift force, leaving a shortfall in excess of 12 million ton-miles per day.

RESEARCH AND DEVELOPMENT ON C–17

For that reason we also further recommend continued research and development on the C–17 at a minimal level so that when we are past the peak funding years on the C–5, there will be an option to procure the C–17 to further augment the intertheater airlift capability, to provide an intratheater outsize airlift capability, which does not exist today, and as a potential replacement for the aging C–141's and C–130's after the turn of the century. And, it is not too early for us to start thinking about that.

CIVIL RESERVE AIR FLEET (CRAF)

Finally the CRAF, Civil Reserve Air Fleet, provides a very, very important element of our national airlift capability. We are very interested in enhancing and improving the Civil Reserve Air Fleet capability. As compared with owning the airplanes, it provides a very attractive option from an economic point of view also.

Mr. Chairman, that concludes my opening comments.

I would turn now to General Burke.

[The prepared statements of General Allen and General Vogt follow:]

PREPARED STATEMENT OF GEN. JAMES R. ALLEN

COMMANDER-IN-CHIEF

MILITARY AIRLIFT COMMAND

Mr. Chairman, Members of the Committee,

I welcome the opportunity to appear before you today to discuss airlift requirements for the Military Airlift Command (MAC).

It is self-evident that we cannot station forces around the world with strength sufficient to meet all potential challenges. What we can and must do is acquire the capability to project rapidly, to any point on the globe, well equipped and trained combat forces that are strong enough to discourage military adventurism. The existence of such a projection capability, by itself, could provide an important element of deterrence to military adventurism on the part of any potential foes. However, today we find ourselves in an imbalanced posture in which our mobility forces are inadequate to meet the rapid deployment needs of our existing combat forces. To correct this deficiency, we must work toward a coordinated and balanced solution that considers not only airlift, but also sealift, prepositioning, and ground transportation. Each of these elements plays an essential role in the mobility equation, but required delivery time and volume dictate the optimum mix between the various elements.

Airlift has many advantages for the deployment of forces, but foremost are its flexibility and speed. Airlift permits an initial response force to be in place virtually anywhere in the world in a matter of hours rather than weeks. This timeliness can make the difference between establishing a defensive position with a relatively small force capable of holding back or slowing an aggressor; or later, after failing to have responded rapidly enough, having to mount a vastly larger force to regain lost ground. The speed and flexibility of airlift can also insure a continuous flow of needed resupply during the first days of the conflict. The ability to project those forces early and to keep them resupplied is critically dependent upon the resources of MAC.

Today we have a respectable and significant airlift capability and are fully capable of accomplishing our peacetime tasks as well as responding to minor contingencies. We have proven this in the past by supporting both contingencies and exercises. Our shortfalls surface when we are tasked for a sizable deployment of forces to meet a major protracted contingency. This is clearly documented in the Congressionally Mandated Mobility Study (CMMS).

Within the Military Airlift Command, I have established three basic priorities to deal with the overall deficiency of airlift. The number one priority has to be our people; second, we must realize the full potential of those resources we have assigned; and third, we need to procure new aircraft to meet the remaining requirements.

My primary concern continues to be the retention of experienced, quality people. Where necessary, we can adjust to shortfalls of equipment, but we cannot operate when there is a lack of dedicated and highly trained people. During recent travels, I have noticed a significant change for the better in the attitude of our people, and this is being reflected in higher retention rates. Much of the credit is due to recent gains in pay and benefits, and our people appreciate your efforts on their behalf. However, we still have problems in some critical areas such as the maintenance career field, and to overcome them, we need your continuing and constant support.

Our next priority is to realize the full potential of our existing resources. A key step toward achieving this has been the congressional action to fund the spare parts deficit for the C-5 and C-141, which currently constrains our wartime capability. This problem cannot be cured overnight because of the long lead times required for some items. However, our utilization potential will continue to increase as additional spares reach the shelves. If present funding levels continue, we will correct our spares problem by FY 85/86.

Another vital factor in realizing the full potential of our assets is the ability to exercise effective command and control over them. MAC requires a system that is responsive, secure, survivable, jam-resistant, and deployable. We are in the process of a long overdue upgrade to our present system which is very important because the improved ability to direct our fleet in near real time will maximize the utilization of our limited assets.

Another program helping us achieve our full potential is the C-141 stretch, which lengthens the fuselage by 23 feet and adds an aerial refueling capability. Not only is this program ahead of schedule and below originally projected cost, but it also has greatly increased our efficiency and flexibility. Program completion is expected next month.

The C-5A wing modification will preserve a unique and vital air mobility asset. This program will permit us to operate these aircraft at full capacity and obtain an additional 30,000 flying hours on each. The first production aircraft entered the Lockheed-Georgia facility in January, and all 77 C-5 aircraft are scheduled to be modified by the end of FY 87.

Another area requiring attention is our intratheater airlift force. Success in battle depends on the capability of placing the right forces in the right place at the right time. This requires the capability to move all categories of cargo, including outsize. Currently, we do not have an outsize intratheater aircraft; however, for the past 25 years, our C-130s have provided a vital capability for bulk and oversize cargo, and it is imperative that battle commanders continue to have this capability in the future. Due to extensive low-level flying and short-field landing operations, we are experiencing an excessive number of fatigue cracks in the outer wings of our C-130Bs and C-130Es. Additionally, due to its age, our C-130As are experiencing corrosion problems in the center wing. Outer wing replacement and center wing rehabilitation will be necessary if we are to maintain the capability of these aircraft. Correcting these wing problems will extend the service life of the C-130 beyond 50 years, or well into the 21st century. As we extend its service life, we must also address the ability of these aircraft to effectively deliver the equipment, supplies, and personnel needed to insure our forces prevail. The capabilities of the C-130 have remained relatively static while the environment in which they operate continues to change dramatically. Upgrade of its navigation, communication, and aerial delivery capabilities is necessary if the C-130 is to operate and survive in tomorrow's tactical environment.

Our third priority is to procure new aircraft to meet the remaining airlift requirement. The proposed addition of 50 new C-5B and 44 KC-10A aircraft will make a major contribution to the recognized CMMS ton-mile per day shortfall. The C-5Bs will provide nearly a 60 percent increase in outsize capability and can be integrated into the airlift system to produce an additional 8 million ton-miles per day (MTM/D) of capability before 1990. The KC-10As will be employed as cargo carriers, as tankers in support of airlift refueling missions, or in a dual airlift/tanker role as in the deployment of tactical air squadrons.

In this last role, a single KC-10A can provide air refueling for eight F-16 aircraft over a 3,000 nautical mile range while airlifting 100,000 pounds of support cargo and personnel. This capability will allow us more effectively to deploy the tactical fighter forces necessary to insure air superiority within the combat theater. As a tanker in support of airlift refueling missions, the KC-10A will increase the flexibility and productivity of our intertheater airlift fleet by reducing reliance on en route basing and eliminating some takeoff limitations now experienced by the C-5. The KC-10A's refueling capability has the potential to increase C-5 average payloads by up to 20 percent from airfields which have takeoff gross-weight restrictions. In the cargo-only role, the KC-10A will airlift significant quantities of bulk (and some oversize) cargo over long ranges and can add approximately 4.9 MTM/D of capability.

The proposed C-5B and KC-10A aircraft will provide an important and welcome addition to our overall airlift capability; however, these additional assets will not satisfy the 25 MTM/D intertheater airlift capability recommended by the CMMS. Also, the C-5Bs and KC-10As do not alleviate serious shortfalls in our intratheater capability. In my judgment, a new aircraft will be required in the latter part of this decade to provide necessary additional capability to our intertheater airlift force, to supplement intratheater airlift capability, and as an eventual replacement for the C-141s and C-130s. The C-17 was designed to meet these requirements, and I strongly urge your support for continued research and development funding for this effort.

In addition to the above, we should continue to pursue a Civil Reserve Air Fleet (CRAF) Enhancement Program that will allow us to incorporate cargo convertibility features in all purchases of new wide-bodied aircraft and to modify existing wide-bodied aircraft. A viable enhancement program could assure the growth of our current CRAF, a program that has been an integral part of our Nation's strategic airlift capability for the last 30 years. It represents approximately 50 percent of our wartime airlift capability, and the Nation's carriers continue to be supportive of this cost-effective program.

In conclusion, your Congressionally Mandated Mobility Study clearly indicates this Nation's critical shortfall in airlift capability. The proposed acquisition of C-5B and KC-10A aircraft will satisfy approximately one-half of the added capability recommended by the study. This is a positive step in the right direction; however, it does not solve the entire intertheater problem nor does it address existing shortfalls in intertheater airlift. In fact, the added cargo volume generated by the C-5B and KC-10A will place an even greater burden on our primary intertheater airlift aircraft--the aging C-130. As a result, the intratheater airlift deficiencies that currently exist will become more acute and potentially a major limiting factor in a protracted contingency. To address both the intertheater and intratheater shortfalls in the late 1980's, we urgently need to continue with research and development of the C-17.

As we work together to fill our Nation's mobility needs, the importance of responsive airlift cannot be exaggerated. The chronic, well-documented airlift shortfall is a matter of serious concern. Our Nation needs a manifest capability to project military power rapidly to any area of the world where America's vital interests may be challenged. If the challenge does occur, we must have the ability to confront it.

Prepared Statement of Brig. Gen. Donald A. Vogt, USAF

MILITARY ASSISTANT

Strategic and Theater Nuclear Forces

I appreciate the opportunity to discuss airlift requirements today. There have been many studies of mobility requirements over the years. In particular, there have been many evaluations of airlift requirements. However, there has been concern that the capabilities of airlift, sealift and prepositioning were not properly considered in the total context.

The Department of Defense Authorization Act of 1981 required the Secretary of Defense to conduct a study to determine overall U.S. military mobility requirements including the total mix of airlift, sealift and prepositioning required for contingencies in the Indian Ocean and other areas of potential conflict during the 1980's. The resultant study was titled the Congressionally Mandated Mobility Study and was forwarded to Congress on 30 April of last year.

The study focused on the problem of determining the proper mix of airlift, sealift and prepositioning without doing the detail decision analysis of what specific airlift or sealift types should be procured. This was done for several reasons; first, it seemed the proper step from an organizational perspective - leaving the Service prerogatives intact and using to the fullest their capabilities. Second, many of the detailed systems capabilities can be efficiently refined during procurement. In particular CX procurement was underway and the details of design were sensitive. Therefore, while we did attempt to add some understanding of the differences in airlift capability between various classes of airlift e.g., outsize vs oversize, small austere vs major airfield capabilities, we did not attempt to justify any particular solution.

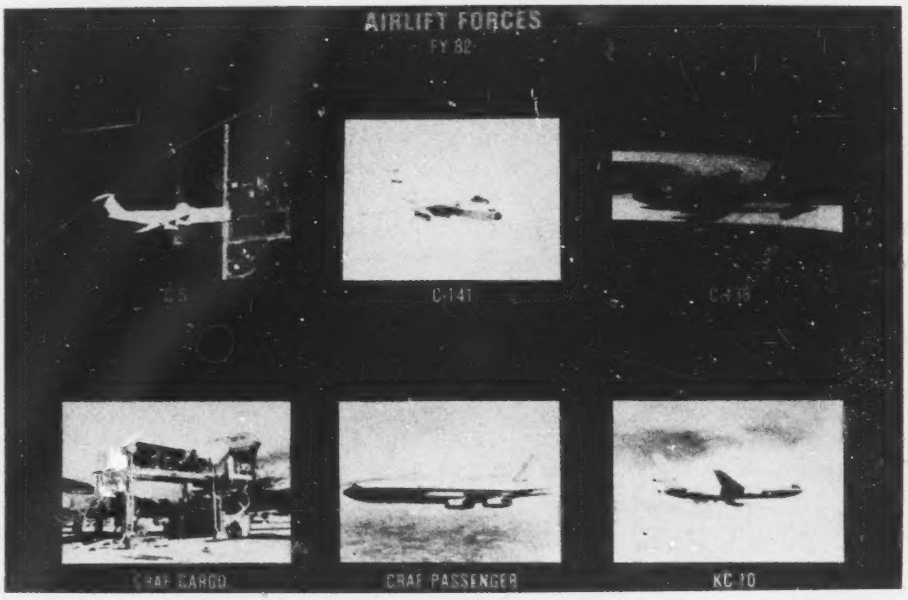
One of the major problems of any mobility analysis is that the results are very heavily influenced by assumptions. particularly strong effects result from assumptions on use of warning, possibility of restriction on supply routes - both through closure of the Suez Canal and attrition. For these reasons the assumptions were very carefully considered by both the Services and OSD. Another problem of mobility analyses is that they tend to focus on the scenario. This is necessary to do the analysis but acts to obscure the military requirement for flexibility. For this reason we considered four scenarios and tried to construct mobility force alternatives which best fit all of the scenarios.

We found in the study that there are synergistic effects between the three modes of mobility. Sealift is necessary to meet the heavy sustaining lift requirement, prepositioning is necessary to provide the heavy early requirements prior to sealift closing, and airlift is required to deliver the people and cargo that are necessary in the early days to round out a combat force. An often overlooked fact is that it is presently not practical to preposition all the equipment needed for combat capability of our units. Items like helicopters and communications gear must be maintained too often to allow that. They also tend to be high dollar per pound items. We found a strong relationship between prepositioning and airlift.

The conclusion of the Mobility Study was that, along with sealift and prepositioning improvements 20 million ton miles per day of additional outsize/oversize airlift capability is needed in addition to the 1986 baseline that existed at the time of the study. The Air Force used the data and results of this study as it was in progress in the evaluation of options for airlift programs.

AIRLIFT FORCE OF TODAY

General **Burke**. I would like to very quickly run through a discussion of where we are today in airlift and where our plans would take us.



(Chart 1)

LONG-RANGE INTERTHEATER AIRCRAFT

As a reminder, this is today's airlift force. We have a large number of the C-130's, about 550, and those are the short-range intratheater aircraft. Today we will not be talking about them, although they certainly deserve attention in the future, but we will be talking about the aircraft that have the long-range intertheater capability which is generally called strategic airlift. That is the makeup of the remaining five here.

Owned and operated by the Air Force, the Military Airlift Command, are the C-141's, of which we have 270, and 77 C-5's. Additionally, the Air Force has 16 KC-10's and proposes to buy more. The KC-10 of course can carry cargo and also very effectively refuels C-5's and C-141's or for that matter tactical fighters.

A very important element and a very desirable element of our country's airlift is the CRAF, the Civil Reserve Aircraft Fleet, divided into cargo and passenger.

In years gone by the Air Force flew passenger airplanes of this type side by side with Pan American and TWA. A decision was made by the Department of Defense jointly with Congress that we would get out of that business and rely to the extent possible on the civilian airline industry to provide for those needs. I think that was a very good decision and one that we have stuck with since then.

Passengers are not a problem. There are over 200 American passenger-carrying airplanes in the CRAF and that is adequate to our needs. Cargo is a problem. There are something over 100 air freighters in the American airline inventory today which, if we expressed in terms of 747 equivalents, would be 67, 747 equivalent aircraft.

For that size body in the civilian marketplace, the airlines buy as many as they think they can make a profit by carrying commercial freight loads. That comes to us for essentially no cost. We have access, General Allen does in times of emergency, by providing the incentives through the form of contracts to carry normal peacetime loads. So to the extent we can rely on this, obviously we wish to continue to because it is much cheaper than anything that we might own ourselves.

CONGRESSIONALLY MANDATED MOBILITY STUDY

There have been a large number of studies that have sought to answer the question of how much airlift does the country need. I might say that nobody has ever done a study that didn't show that there was a substantial need, particularly for the long-range airlift and particularly to carry outsize cargo.

Directed by Congress in fiscal year 1981 Defense Authorization Act
Conducted by JCS and OSD
Analyzed Four Scenarios
Major conclusions: Additional airlift, sealift, and pre-positioning required: Recommended airlift increase of 25 MTM/day, 10 MTM/day to be outsize capable.

(CHART 2)

FOUR SCENARIOS OF CMMS

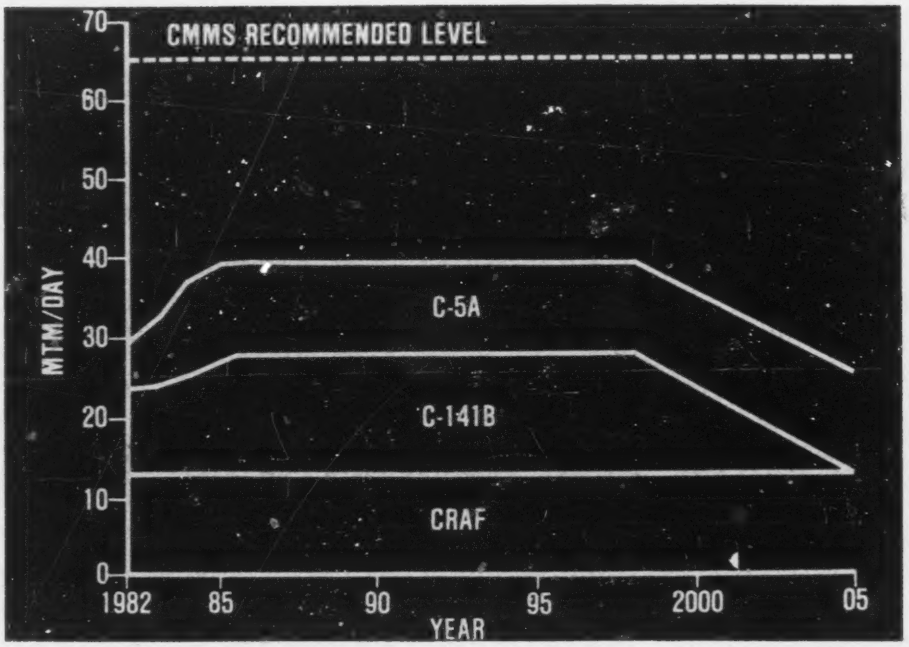
But the most recent and I think the most authoritative study was the congressionally mandated mobility study which we will call CMMS which Congress asked us to do as part of the 1981 bill. It was done by the JCS and the Office of the Secretary of Defense with support from the Air Force and the other services.

It analyzed four scenarios that had been included in the Congressional bill language, and then the scenarios were developed fully by the Joint Chiefs of Staff and related as closely as possible to real world planning; although no one would hold out that any scenario will predict exactly what will happen where and when.

A lot of work went into that. The major conclusions were that we were short of all forms of mobility: airlift, sealift, and pre-positioning. With specific regard to airlift, the recommendation of CMMS was an increase of 25 million ton-miles per day of which at least 10 million should be outsize capable.

PRESENT AIRLIFT CAPABILITY

I will get to a definition of outsize capable a little later in the briefing. But to illustrate graphically the recommendation, this is the airlift that we have today. It is going up if we do the things that General Allen spoke of, buy the spare parts, train the additional crews, stretch the 141 and rewing the C-5. That will get us to the point where we are getting all the mileage that is possible out of what we now own and gets us up to about 40 million ton-miles a day, for which about 12 is outsize capable in the C-5A range.



(Chart 3)

This assumes that the current inventory of civilian freighters will stay constant and we think that is probably about right. The CMMS recommendation was to increase from this to 65 million ton-miles a day, an increase of about 25 million ton-miles a day of which 10 million was recommended to be outsize.

Alternatives for Reducing Airlift Shortfall

Available wide body aircraft: CRAF modification of 747 or DC-10 passenger aircraft; purchase 747 or DC-10 cargo aircraft; purchase more KC-10 aircraft.

Aircraft with Outsize Capability and Military Features; C-17; C-5B.

(Chart 4)

RECOMMENDED AIRLIFT INCREASE

There were a number of ways one could address the alternatives for filling that gap and addressing the shortfall. The problem tends to divide itself into two parts, what you can do with available wide-bodied aircraft and what you can do if you build something yourself that has outsize capability and the military features that would be desirable in airplanes of this type.

In the first group we considered, and our first goal was to add to our CRAF freighter fleet. There were no more new freighters coming into the inventory. So we looked at the possibility of taking aircraft that were coming down the production line in passenger configuration and adding the extra floor weight and the bigger door so that they could be convertible to a cargo role. The idea being that in peacetime they would carry passengers in service for United or whoever, but in an emergency they could come to General Allen and be modified to carry freight.

Unfortunately, by the time we got around to implementing this, there were no new production wide-bodied aircraft available. Those lines were fairly well stopped at that point. So we then looked at the prospect of modifying in-service airplanes that were already flying. When the bids came back on that they were quite disappointing because when you paid the penalty for the additional time out of service, the costs got to a level that we thought were not affordable.

Nonetheless, we aspire to go back to that. That is still the least cost alternative. We are hopeful that there will be new production aircraft in 1984 and beyond and we have budgeted in the outyears for additional CRAF aircraft.

We also looked at just buying ourselves new 747's or DC-10's, and we compared that with the idea of buying more of the KC-10's. We had already conducted a competition, which we called the ATCA, the advanced tanker cargo aircraft, and selected the DC-10 over the 747 for that role. We had made it an air refueling aircraft as well as a freighter. They are coming into service and we are very satisfied with them.

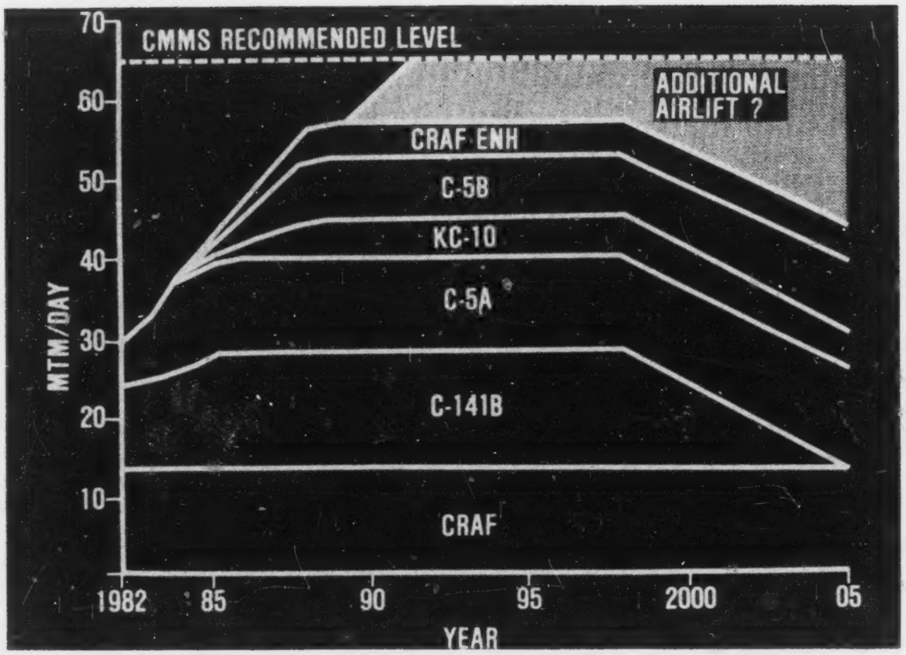
So from these two it just seemed desirable to continue with that buy of KC-10. We had competitively derived options on an additional 44 aircraft at favorable prices and the recommendation was to exercise those.

COMPARISON OF C-17 TO C-5B

Looking in the second area, the choice was between the C-17 and C-5B. The C-17 is a newer aircraft and a better aircraft. We prefer it, other factors being equal. Looking at it with the funding that was available for this purpose until a few months ago, there was not a great deal of difference in the time that either would be available, on the order of 12 to 18 months. We thought the advantages of the C-17 more than offset the early availability of the C-5B.

In considering the whole airlift question late last year, the Secretary of Defense and the Deputy Secretary of Defense concluded that airlift was indeed an urgent and compelling need, that it ought to have a higher priority and ought to be funded at a higher level.

After doing that they asked us then which would be our preference and we then found that with increased funding for this purpose it was possible to get delivery on a C-5 much quicker than on a C-17. The C-5 was amendable to acceleration in ways that the C-17, the new airplane, simply was not. Then we found that the differences in availability was more like 4 years and we thought it was not worth waiting the additional 4 years for a better airplane. On that basis we recommended that we procure 50 C-5's for which we had a firm fixed price proposal by Lockheed.



(Chart 5)

CMMS RECOMMENDATIONS

Those were our recommendations, continue CRAF when available, buy the 50 C-5's and the 44 KC-10's. When that was done, it would add 17 million ton-miles of cargo to the airlift force. It would be 4 million in CRAF, 5 million in the KC-10, and 8 million in the C-5B. So this is 9 million ton-miles per day non-outsize and 8 million of outsize, still leaving, as General Allen pointed out, a gap, a deficiency, and a deficiency that will increase as the older aircraft reach their retirement age.

Comparison of C-5B and B747F

Availability;
Cost; and
Military value.

(Chart 6)

COMPARISON OF C-5B TO 747

I think the major question that the committee is interested in is the proposal of fairly recently, although we had considered 747's earlier. That was highlighted in the last few months. I would like to talk about a comparison of the C-5B approach to that of buying 747's, and I will talk about it in terms of availability, the cost, and the military value of the two airplanes.

Just a word on availability. We would calculate that the 747 is available about a year earlier than the C-5. The C-5 proposal would provide for the delivery of the first airplane in 38 months.

The 747 would be available in 12 months, and that is, of course, a difference of 26 months.

But to that we would first have to allow a period of time to compete the 747 with the DC–10. We don't believe that we can procure the 747 under existing regulations without competition against the DC–10 which is equally available. That would take about 6 months. Then we would think that once we had the——

Senator **Stevens**. Did you have a competition on the C–5B?

General **Burke**. We did not have a competition on the C–5B because there is no alternative to the C–5B in terms of outsize cargo capability, but the DC–10 will clearly do the same sorts of things that the 747 can.

Additionally, the C–5 would go directly into operational service. It would just add to the force we already have. The 747 will be new and require a period of time for training and developing the supporting infrastructure. When we brought KC–10's in a couple of years ago, it took 9 months. We would think that for the 747 it would be about the same. So those 15 months then would reduce the difference in time to about 11 months and we think that would be the difference in operational availability.

I have a few charts on cost and a few more on military value.

COST—FISCAL YEAR 1982

[Dollars in billions]

	C–5B	B747F	Difference
Number of aircraft	50	48	50/48
Acquisition cost	$6.4	$3.8	$2.6
20-yr life cycle cost	$16.0	$13.2	$2.8

(Chart 7)

BOEING PROPOSAL

The proposal that Boeing made to us was that instead of buying 50 C–5's we would buy 48 Boeing 747's. They did a calculation based on the CMMS scenario I which showed that at the end of 28 days these forces had done the same job. So in their view they were equally capable. We don't agree with that and I will explain why in a minute. But accepting the Boeing conclusions, the relative cost difference would be as shown. In acquisition about $2.6 billion and in 20-year life cycle costs about $2.8 billion less for the Boeing aircraft.

CMMS LOADINGS IN COMPARISON TO BOEING'S

We took the Boeing loading assumptions. We took the actual CMMS loadings that were in the study and ran that through our computer model and compared that to the Boeing. Boeing did these calculations with a different computer model and an assumed CMMS loading which differs in some ways from the actual one.

COST—FISCAL YEAR 1982

[Dollars in billions]

	C-5B	B747F	Difference
Number of aircraft	50	55	50/55
Acquisition cost	$6.4	$4.4	$2.0
2020-yr. life cycle cost	$16.0	$15.0	$1.0

When we did that, rather than 48 we came out with 55 to reach equivalent deliveries at the end of the 28-day period. That changes the numbers and would lower the difference to about $1 billion in life cycle cost. But we think that is not the right way to look at the problem. That is a snapshot taken on day 28 of what you had been able to deliver and it does illuminate what took place between day 1 and day 28. I will show a measure that does look at that a bit later and that will point us to a very different conclusion.

MILITARY VALUE

- Flexibility and responsiveness.
- Outsize carriage capability.

(CHART 9)

MILITARY VALUE OF AIRCRAFT

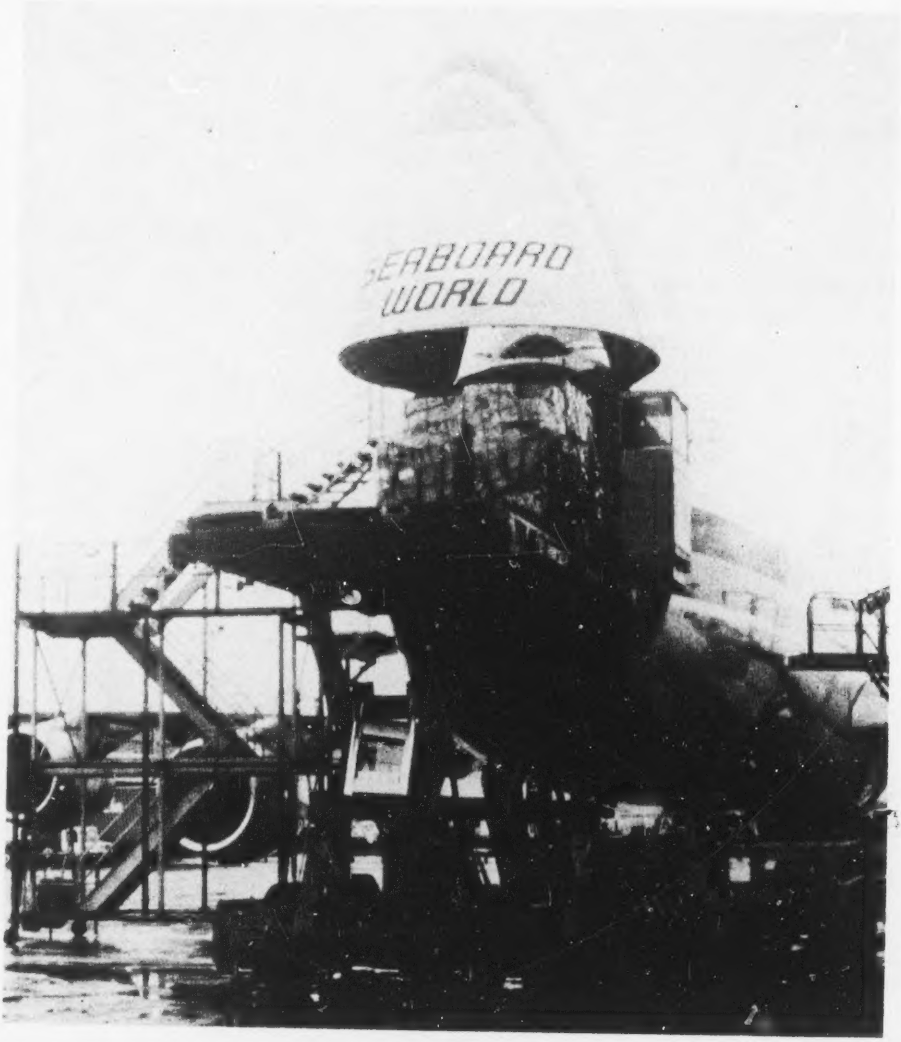
Military value, if we could talk about flexibility and responsiveness, which may sound like buzz words, but they are very important things. By that we mean the ability to operate these aircraft in and out of airfields where we had not pre-positioned equipment and that we didn't even know that we were going to need to go into, to get them in and offloaded quickly with the equipment in the right condition and be on their way.

That outsize carriage capability of course is the ability to carry the very large things which make up the muscle and firepower of the modern Army and also the Marine Corps.

COMPARISON OF COMMERCIAL AND MILITARY AIRLIFTERS

To talk first about the flexibility and responsiveness, the ways to operate airplanes into places that you haven't planned ahead for and to do things that you haven't necessarily anticipated. There is a fundamentally different design philosophy in the way commercial airlifters are built and the way military airlifters are built, and that is because it is assumed that a commercial airlifter is going to operate from major terminal to major terminal and that it will have whatever equipment is there and whatever trained people are necessary for that purpose.

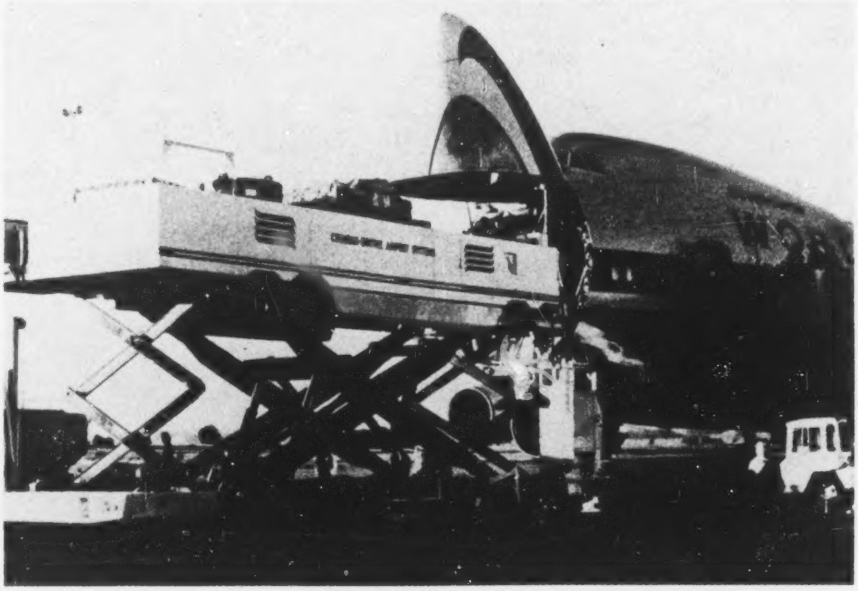
Hence, you will note that all of them will have a low wing and the body of the airplane will be considerably higher off the ground.


SEABOARD
WORLD

(Chart 10)

747 FREIGHTER

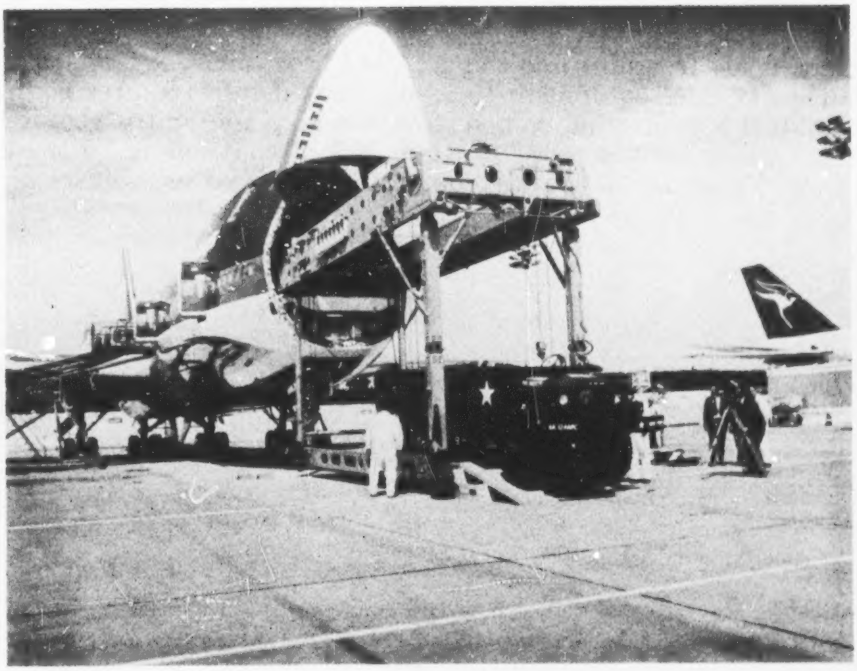
This is a 747 freighter and the deck is 16 feet above ground. So it obviously requires equipment to load it, but it also requires equipment like this to get up even to fuel the airplane and it requires another ladder for the crew to get in. All of that has to be there, available. Those are the things that aren't required in military aircraft.



(CHART 11)

BULK CARGO LOADER

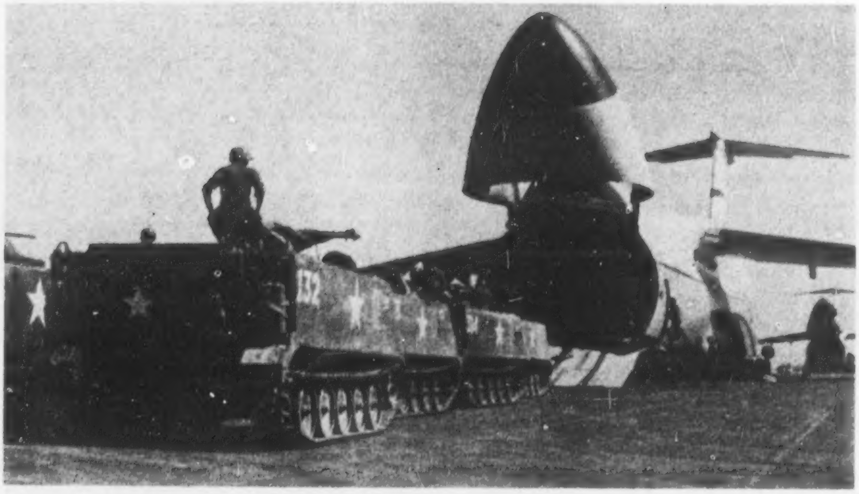
Here is another loader. This is the type that is used to load bulk cargo. This is a self-propelled device and fairly large and not something that you will find in smaller airfields obviously.



(CHART 12)

LOADING EQUIPMENT

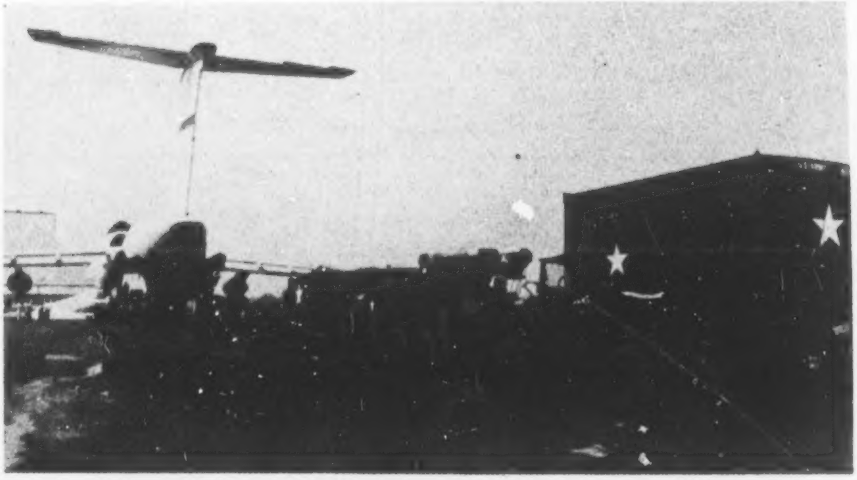
To load heavier items, and this is a two and one-half ton truck, you then have to have a winch device that hoists the truck up 16 feet and then pushes it into the cargo area.



(CHART 13)

C–5 LOADING CAPABILITY

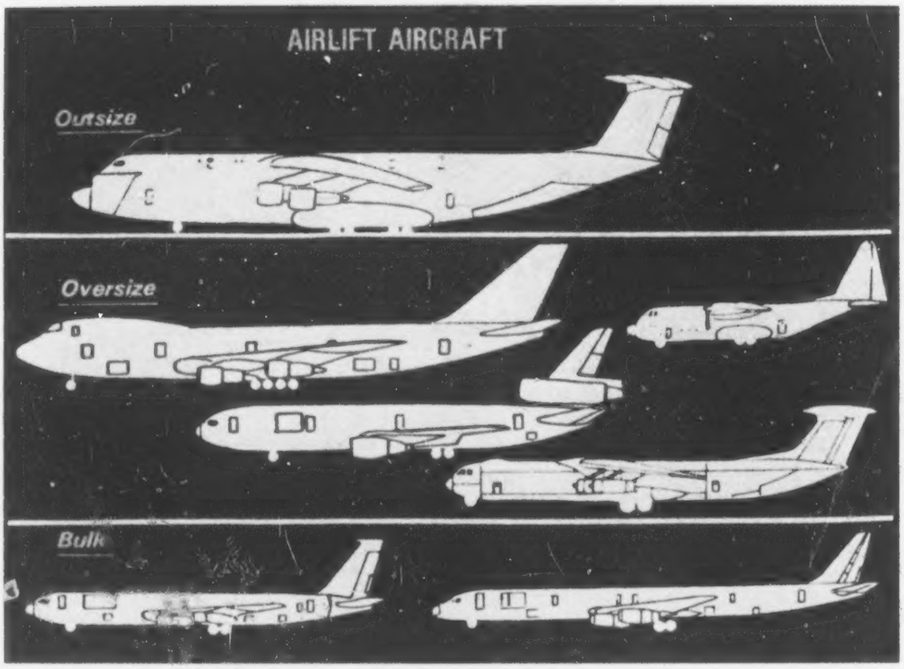
In contrast, a military airplane, this is a C–5, typical of that design, has a high wing and a low floor. Entry for the crew for refueling is all done at ground level. This floor is just truck bed height and it also has a ramp that lowers.



(CHART 14)

VEHICLE DRIVE-ON

Vehicles can drive on and drive off and it can be loaded both from the front and the rear. Obviously that facilitates both loading and unloading.

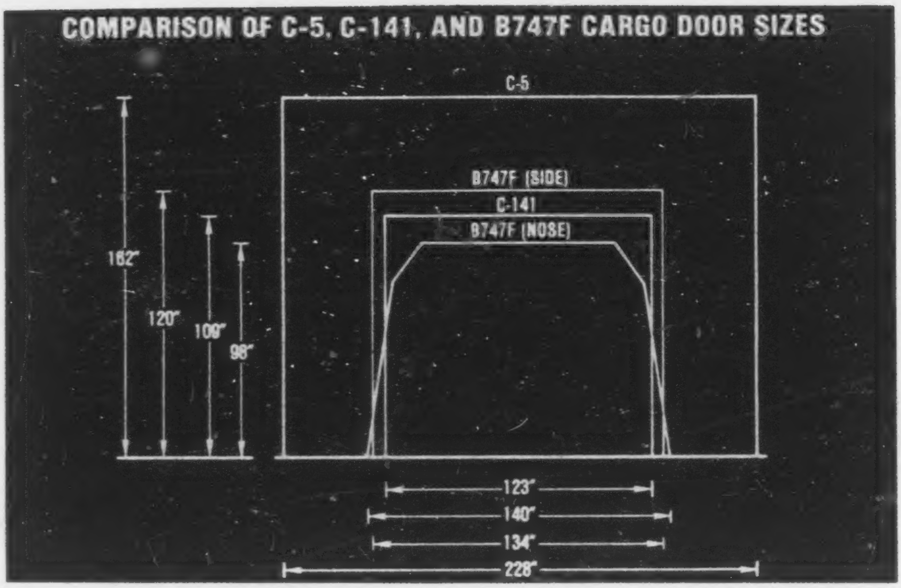


(Chart 15)

OUTSIZE CARRIAGE CAPABILITY

To turn to the second question, that of the outsize cargo, and I will just define the terms quickly. By bulk cargo we mean items that are small enough to be carried on a standard pallet as cargo is loaded on. Any of these airplanes can carry that. Oversize are items that are too big to go on that pallet but that are not too big to go into a C–141. That is just an arbitrary definition that we made up some time ago.

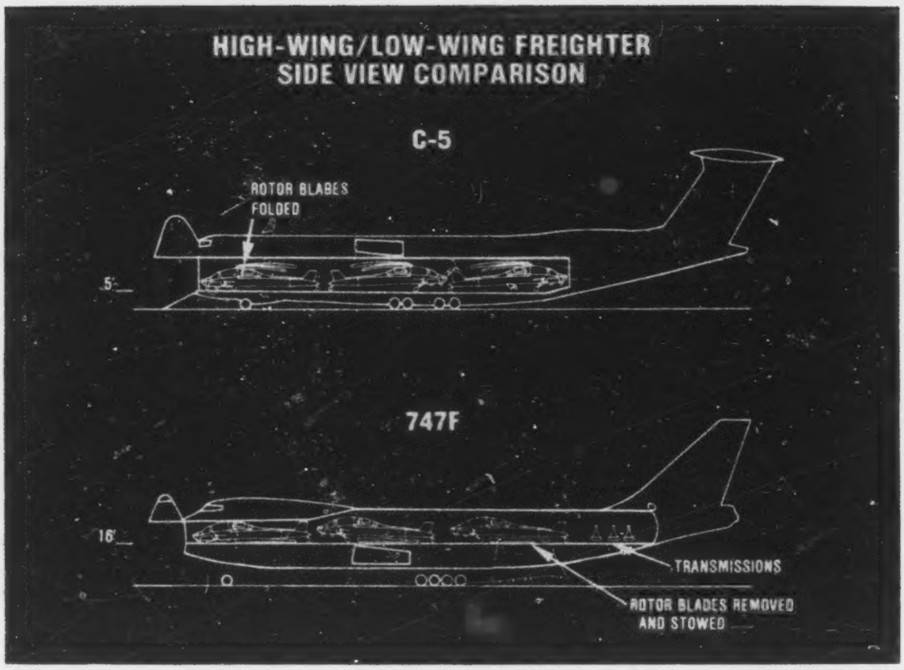
Any of these airplanes can carry that. Again by definition outsize cargo is anything that is too big to go inside a C–141 and the only airplane that can then carry it is the C–5. I will talk a little later about what some of these things are and how important they are. That is largely determined by the entry door size of these various airplanes.


COMPARISON OF C-5, C-141, AND B747F CARGO DOOR SIZES
C-5
B747F (SIDE)
C-141
B747F (NOSE)
162"
120"
109"
98"
123"
140"
134"
228"

(CHART 16)

COMPARISON OF CARGO DOOR SIZES

Here we have the 747 nose door which is 8 feet high. It does have a 10 foot door on the side, but generally when you find an item that is tall and wide, it is also long. Almost all of the large cargo would have to be loaded through this 8-foot nose door. The C–141 is a 9-foot door. The C–5 is a 13.5-foot door.

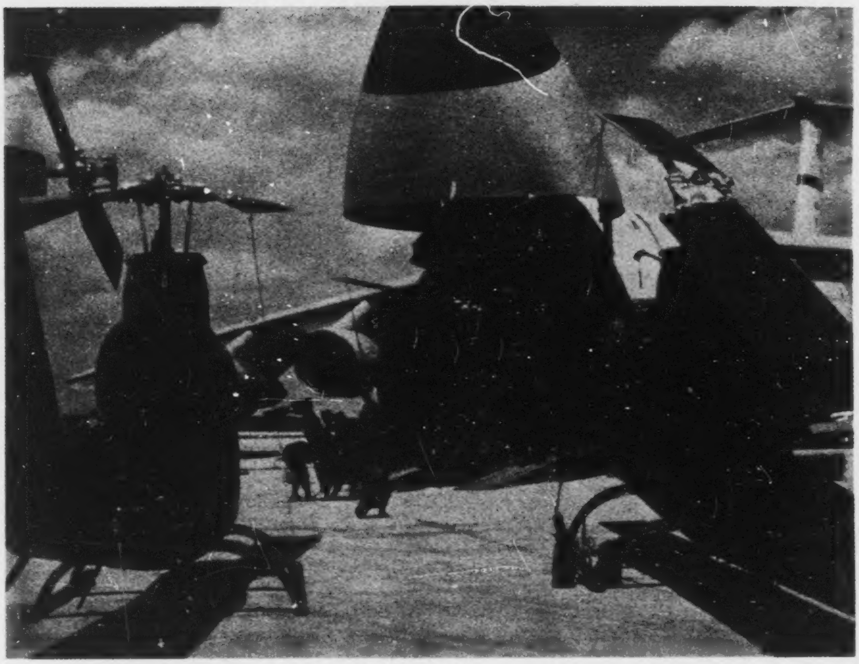

HIGH-WING/LOW-WING FREIGHTER
SIDE VIEW COMPARISON
C-5
ROTOR BLADES FOLDED
5'
747F
16'
TRANSMISSIONS
ROTOR BLADES REMOVED AND STOWED

(CHART 17)

HELICOPTER LOADING

Looking at it from the side you would get a picture something like this. This shows attack helicopters loaded aboard the two airplanes. Because of the 13-foot door, by simply folding back the rotor blades, which is a 10-minute job, those helicopters can be loaded directly on there. Incidentally, you can only see one row, but there is another row, it carries six.

In contrast, to go aboard the 747 these helicopters cannot go through that side door and make the turn. They have to go through the nose, that 8-foot dimension. That requries you to remove the rotors and the transmissions and to store them separately. When that is done, you could store five of these on there, but at a fairly substantial penalty in time and operational inconvenience.



(CHART 18)

OFF LOADING HELICOPTERS

Here, for example, is a photograph of helicopters being offloaded from a C-5 in a combat configuration and ready to go immediately into operational use. By contrast, to put these on a 747, this rotor comes off, the drive shaft comes off and its transmission and all of that comes off. The disassembly is not a great problem, but then when the airplane lands it requires a period of reassembly and you have to have a test flight. That takes about 4 hours and it assumes that you have been clever enough to preposition the crane to get that rotor in place, that you have the specially trained mechanics who would not normally be part of the unit that is deployed with these and that they have all the tools and equipment that is necessary to do that job.

TYPES OF OUTSIDE CARGO ITEMS

Heavy Equipment Capability

	C-5B	B747F
FIREPOWER		
155 S Phowitzer	Yes[1]	No.
Divad gun	Yes[1]	No.
M-1/M-60 tank	Yes[1]	No.
IFV/CFV	Yes[1]	S/D[2].
Attack helicopter	Yes[1]	S/D[2].

TYPES OF OUTSIDE CARGO ITEMS—Continued

	C-5B	B747F
COMBAT SUPPORT		
Combat eng vehicle	Yes	No.
Recovery vehicle	Yes	No.
Heavy equip transporter	Yes	No.
5-ton truck	Yes	S[2].
2½-ton truck	Yes	Yes.

[1] Can be loaded combat ready.

[2] S–special clearances/handling; D–disassembly.

(CHART 19)

TYPES OF OUTSIZE CARGO ITEMS

The above chart is representative of the types of items that are included in the outsize cargo capability. Again, these are not nice-to-have things. These are critical to the successful employment of our Army and Marine Corps and represent the firepower and the items that are necessary to support that firepower.

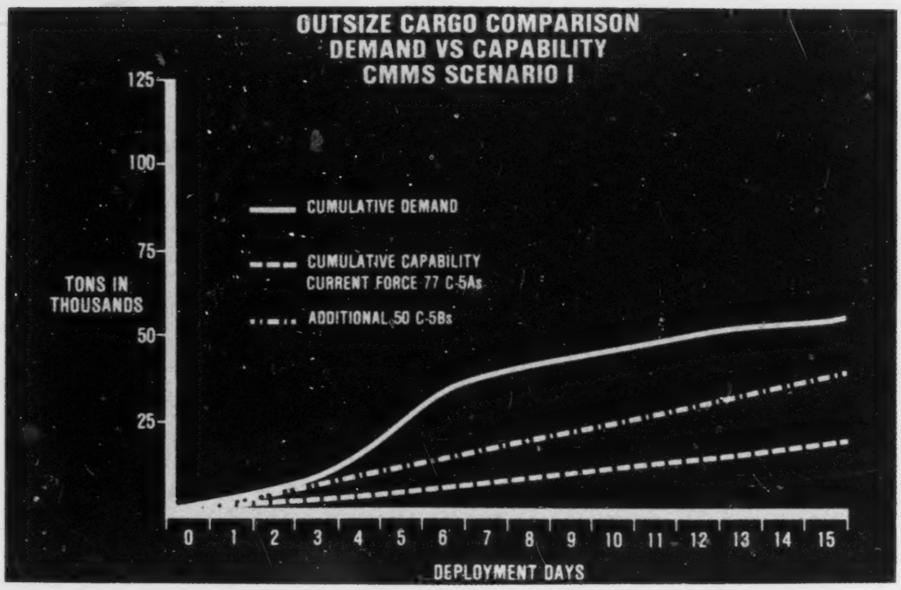
Looking at them you can see that of course all of it can go on a C–5, and that is by design and not surprising. The 747 cannot by any reasonable method of disassembly carry any of these first three. There are many more, but these are representative. It can carry the infantry fighting vehicle and the cavalry fighting vehicle, but to do that first requires some special clearance. It is a much tighter fit than you would like so you have to load it very gingerly in a time-consuming manner and it requires disassembly and again the reassembly at the other end. The same is true of the helicopters.

You will notice the footnote by all of these items. They are loaded in a combat ready configuration on the C–5 and in no way can you do that with a 747.

The same sort of story is true for these important support vehicles. Some of them you just can't get on the 747. The 5-ton truck, allowing for special handling and the time that takes, you can. The largest item that will go on without any special provisions is that 2½-ton truck that you saw being loaded earlier.

REQUIREMENT FOR OUTSIZE CARGO CAPABILITY

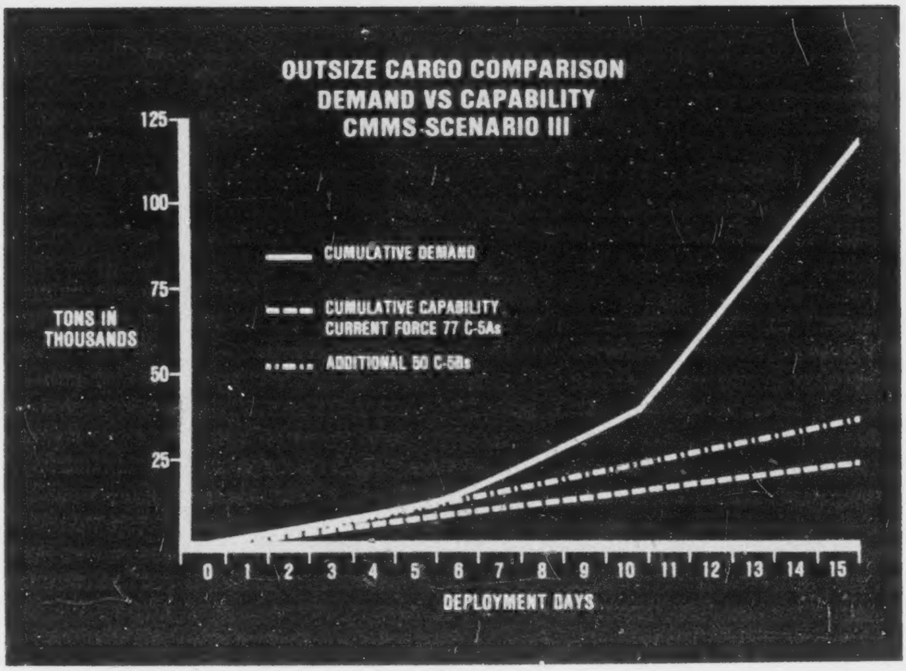
How much requirement is there for outsize cargo capability? I will just show two of the scenarios from the CMMS. The first is the one that was used in the Boeing analysis and I will show that.



(Chart 20)

It shows a cumulative outsize cargo requirement over time out past the 15th day. It is just beyond this that surface ships would be beginning to arrive.

It shows with the current level of outsize aircraft there would be about a 30-million-ton shortfall at the end of the 15th day. With the airlift procurement proposed, specifically the 50 additional C-5's, that is cut in half to about 15.



(CHART 21)

NATO REINFORCEMENT

Probably a more important scenario, in my mind a more important scenario, is the NATO reinforcement. That was No. 3 in the CMMS list. It showed a similar picture with a rapid increase in the outsize requirement out here, but this is also the period of time that shipping is becoming important.

The more important phase is the earlier days before the sealift can get there. Again, the scale has changed and this is about a 30-million-ton shortfall and that is cut in about half with the addition of the 50 C–5's.

So there is a very substantial requirement. The proposed buy will not solve it, but it is a major step in that direction.

BRIGADE DAYS IN THEATER

Now I mentioned earlier in talking of costs that I would try and show a better measure of merit by which we could assess the costs.

Looking at the conditions that would prevail on the 28th day, or looking at the cumulative deliveries on the 28th day, doesn't tell you what happened in between. Indeed, you might have won or lost the war before that 28th day shows up.

BRIGADE DAYS IN THEATER TO SEALIFT EFFECTIVENESS DAY

[CMMS scenarios—Army and Marine Corps]

	KC-10/CRAF/C-58	KC-10/CRAF/B747F	Percent difference
Scenario I	50	43	16
Scenario II	110	103	7
Scenario III	120	96	25
Scenario IV	138	103	35

(CHART 22)

A better measure and we think the correct one is this, and that is brigade-days in theater to sealift effectiveness day. That measures the number of brigades that you have in the theater, where you want them to be and properly equipped and ready to fight.

BRIGADE-DAYS IN THEATER TO SEALIFT EFFECTIVENESS DAY

[CMMS scenarios—Army and Marine Corps]

	Equal cost forces		Percent difference
	KC-10/CRAF/C-5B	KC-10/CRAF/B747F	
Scenario I	50	45	10
Scenario II	110	105	5
Scenario III	120	97	24
Scenario IV	138	110	25

(CHART 23)

Looking at all four of the scenarios and using the proposed Boeing substitution, this is the 50 C-5B's along with CRAF and KC-10's. This column substitutes the 48 747's as proposed by Boeing. The difference is of course that the C-5 buy provides substantially more brigade-days in theater than does the Boeing proposal. We think that is a correct measure of merit and we would therefore think that Boeing is wrong when they would argue that 48 747's equals 50 C-5's. It would fail to by this amount in each of those scenarios.

If we looked at that another way and we looked at equal cost forces, which turns out to be 58 747's rather than 48, and still the 50 C-5's provide more brigade-days in theater in each instance. So we would conclude from that that the C-5 is a more cost-effective solution for the delivery of these military forces, where and when needed, than is the 747.

IS ADDITIONAL MILITARY VALUE OF C-5B WORTH ADDITIONAL COST?

Outsize capability and military design features important.
These characteristics available only in USAF-owned aircraft.
Nonoutsize available from other (less expensive) sources: CRAF; bulk loading of passenger aircraft; foreign carriers.
CMMS recommended 25MTM/D: 10 MTM/D outsize; 15 MTM/D nonoutsize: President's budget provides balanced buy of outsize and nonoutsize.

(CHART 24)

C–5 MORE COST EFFECTIVE FOR MILITARY NEEDS

To conclude, we believe that the C–5 is a more cost effective solution, but obviously the individual airplanes cost more. The question I think that is in most people's mind is: "Is that additional cost for the individual airplane justified by the increased military value"?

To summarize what I said before, I think clearly that that outsize cargo is a critical requirement and it is of the utmost importance that we meet it as best we can. I think it is also important that we have airplanes that do have flexibility to operate into places under circumstances that we have not perhaps anticipated and prepositioned support equipment and people for. Importantly, the only way you get those characteristics is to buy it. It is not available anywhere in the civilian world.

On the other hand, the nonoutsize cargo capable aircraft, such as the 747's, are available, at least potentially, from other sources and at a lot less cost. Again, our first goal would be to expand the CRAF program as best the marketplace will allow us to, and I expect we will have some success in that, but there are also ways that we can improvise in this area that we can't in the outsize area.

For instance, in 1973 the Israelis made very good use of their commercial 747 passenger carrying airplanes by flying into this country and simply bulk loading them in a crude and inefficient manner, but nonetheless getting the job done with ammunition, spare parts, and so forth. We could do that same sort of thing, too.

Also, there is around the world a large number of foreign-owned freighter aircraft, a larger number than owned by this country, in fact, and, depending on the circumstances, likely some of those would be available.

So there are alternatives for that nonoutsize cargo, but no alternatives to the outsize other than to buy it and own it.

To conclude, the CMMS did recommend an additional 25 million ton-miles a day of capability, including at least 10 of that to be outsize. The President's proposal represents a balanced buy. We couldn't afford the 25. The proposals add up to 17 million ton-miles of which 9 are nonoutsize and 8 are outsize.

Senator **Stevens**. I have to interrupt you because Senator Rudman has to go Chair and I am sure he will have some questions here.

General **Burke**. I am through, sir.

Senator **Stevens**. Senator Rudman.

Senator **Rudman**. Thank you very much, Mr. Chairman. I do have to preside at 11 o'clock and I did want a chance to ask General Burke and General Allen a couple of questions.

ASSUMPTIONS MAKING UP BRIGADE DAYS

Let me start out in reverse order. Regarding this particular chart "Brigade Days In Theater To Sealift Effectiveness Day," we don't have time to cover this today and I think this whole debate is going to take a longer period of time than most people believe. I would like to see the assumptions that went into making this up because I challenge that it really can be explained today except in a very theoretical sense.

Let me also point out to you that the first line scenario one, which I believe is 50 days——

Senator **Stevens**. Put the chart back up, would you.

BRIGADE DAYS IN THEATER TO SEALIFT EFFECTIVENESS DAY

[CMMS scenarios—Army and Marine Corps]

	KC-10/CRAF/C-5B	KC-10/CRAF/B747F	Percent difference
Scenario I	50	43	16
Scenario II	110	103	7
Scenario III	120	96	25
Scenario IV	138	103	35

(Chart 25)

Senator **Rudman**. The difference is 7 days, which you express in terms of a percentage of 16 percent. The difference is 7 days. I have not made up my mind on this issue, so I am approaching this hopefully just from the point of view of getting information.

I think you would agree with me that if push came to shove the improvization of MAC in the past demonstrates you could probably eliminate that 7 days at least over the 50. Wouldn't you say that is probably true?

General **Burke**. I would think that we could improvize and improve on either of them.

Senator **Stevens**. But it assumes less 747's than you assume C-5B's. I can't understand that to start with.

General **Burke**. With that I was simply quantifying the Boeing proposal and then I presented following that what we would consider equal.

Senator **Rudman**. Obviously, General Burke, we are not going to let Boeing tell us how to run MAC. We are going to run MAC. I just want to say that their proposal really doesn't accurately state what those days would be.

But that is not really my principal question. I would like to know the assumptions that went into that calculation.

[The information follows:]

Assumptions on "Brigade Days"

The brigade day calculation was developed as a measure of effectiveness of an airlift program. It is defined as the sum of the number of days a brigade is in its forward operating location up to the day that fast sealift (SL-7 type ships) can close a unit (this is called sealift effectiveness day). It is computed for each brigade that is closed prior to sealift effectiveness day and summed over all brigades. Table 1 provides an example.

TABLE 1.—EXAMPLE OF BRIGADE DAY CALCULATION

Unit	Closure date	Sealift effectivenss day	Brigade days
Brigade 1	10	20	10
Brigade 2	12	20	8
Brigade 3	9	20	11

TABLE 1.—EXAMPLE OF BRIGADE DAY CALCULATION—Continued

Unit	Closure date	Sealift effectivenss day	Brigade days
Total			29

In Table 1 the difference between sealift effectiveness day and the brigade closure date is summed to produce a brigade day value of 20 for this sample deployment.

The advantage of the brigade day calculation is that it provides an indication of the balance in the airlift fleet. Each brigade has bulk, oversize, and outsize equipment to be moved and all its equipment must be delivered to the theater and the unit moved forward before it is closed. If the airlift fleet does not provide a capability that is in balance with the requirement, deployment time will increase and the brigade day measure will decrease. Particularly, if the airlift fleet is capable of moving oversize and bulk cargoes at a faster rate than outsize, a unit will be forced to wait for the delivery of its outsize cargo before moving to its forward location, thus delaying the unit closure.

It is not possible to design an airlift fleet that is perfectly balanced for all possible scenarios. With brigade days, or any other measure of effectiveness, it is necessary to look at several representative scenarios when evaluating airlift programs.

With reference to specific assumptions, the columns on the "Brigade Days" briefing chart for equal cost forces represent the addition to the CMMS 1986 baseline force of 42 PAA KC-10As (44 total buy), 22 Wide Body CRAF aircraft (B-747 equivalents) and either 44 PAA C-5B (50 total buy) or 51 PAA Boeing 747Fs (58 total buy).

The distances, block speeds, ute rates and average payloads used were as published in the CMMS.

The brigades used were Army and Marine Corps brigades that closed by sealift effectiveness day. These included prepositioned forces that required airlift to complete the closure of the unit.

General **Burke**. I think that the following chart is the more relevant one.

Senator **Rudman**. I think it probably is.

BRIGADE DAYS IN THEATER TO SEALIFT EFFECTIVENESS DAY

[CMMS scenarios—Army and Marine Corps]

	Equal cost forces		Percent difference
	KC-10/CRAF/C-5B	KC-10/CRAF/B747F	
Scenario I	50	45	10
Scenario II	110	105	5
Scenario III	120	97	24
Scenario IV	138	110	25

(Chart 26)

General **Burke**. But I just didn't want to dismiss the Boeing proposal out of hand so I showed you what it would look like. This is an equal cost force by our calculation of 58 Boeing 747's and 50 C-5's.

Senator **Rudman**. I really have two questions or really one statement and one question. I think everybody probably can agree that we are looking for maximum flexibility with no sophisticated load management planning whatsoever and means to handle any contingency whatsoever. If that is what we need, then we have to go with the C-5A. That is how I would vote because I am convinced that it obviously is the more flexible airplane. No one, including Boeing, can deny that.

STUDIES DONE ON PLANNING AND THEORETICAL LOADING

My question, after having made that statement, is simply this: Have General Allen's staff and your staff done the kind of planning and theoretical loading on a particular unit, such as the 101st Airborne, to show the committee what you would have to do to move the 101st to the Middle East or to Europe in terms of how you could load manage the 101st using a combination of C-5A's for the outsize equipment and the 747's and the 141's for the balance of the oversized? You must have done this planning. I just know you people do so much planning down there that you had to do that. What did the results show?

General **Allen**. Well, I would have to say, Senator, in response, that we do exercises with the 101st Airborne Division, maybe not daily, but certainly on a weekly and monthly basis. We have an intimate relationship with the 101st Airborne Division.

The problem we get into though when we are talking about reinforcement in a contingency situation, we are not moving just the 101st Airborne Division. We are also moving tactical fighter wings. We are also moving support elements. We are also moving, if it is Southwest Asia, the Rapid Deployment Force Headquarters and other associated elements.

If you took just the 101st Airborne Division and talked about just moving it, I suspect you could do a very credible job with a combination of the present force of C-5's and 747's. But, on the other hand, that is not what the job is. The job is much bigger than that.

Senator **Rudman**. You have answered the first part of my question. Let me ask another question. Is the management burden so great in terms of load planning. Obviously, you have to have a certain number of C-5A's in a certain place at a certain time to carry a certain kind of cargo. Nobody wants to disassemble helicopters for all the reasons that General Burke very accurately stated.

Has anyone done a very careful study of the actual scenario that you would be dealing with as to how you could move C-5A's, 141's, and 747's in concert and move that load from point "A" to point "B"? Have you done that?

General **Allen**. We have done the actual load plannings using the existing C-5's, C-141's, and the CRAF force which includes 747's of course. With regard to the actual war planning, we work on the basis of the priorities established by the theater commander or the commander of the Rapid Deployment Force, in the case of Southwest Asia, to establish his priorities of movement. We move in accordance with his priorities.

Now if his priorities in one area, for example, tend to be inefficient, we go back and talk to him and say, "You know, if it wouldn't bother you too much to adjust these priorities slightly, we can get better utilization of the air fleet that is available," and he will tell us 9 times out of 10 that he can adjust. Sometimes he says no, it has got to be this way because my battle plan depends upon it and I will lose the war if I don't have that unit there by that date in which case we go back and do it this way.

That interface goes on continuously. It does include the present C-5 force, the present C-141 force, and the present CRAF force which includes the 747's and that is worked out in excruciating detail.

Senator **Rudman**. And it works, I assume, not as well as a total C-5A force would work, but it works.

SHORTFALLS IN AIRLIFT CAPABILITY

General **Allen**. As a matter of fact, it does not work. If it worked we would not be here today saying that there are shortfalls in our airlift capability. We cannot deliver the forces that those commanders need on the time schedule that they need them.

Senator **Rudman**. Well, we agree with that. That wasn't my question. My question is: Will it work to the limits of the capacity of the CRAF fleet with the present C-5A's?

General **Allen**. We do the best we can with the current force, yes.

Senator **Rudman**. Mr. Chairman, I think I have probably used up my time.

You know, General Allen and General Burke, we have got some terribly tough decisions to make around here and most of this committee is very sympathetic to the needs of the Defense Department. I have no doubt that there will be substantial cuts in this defense budget and probably in force structure. I don't know how much money we can save in this, if any. I am certainly going to look at it.

I have got a lot of confidence in the U.S. Air Force and I would be willing to say that if you ended up with a fleet of 747's instead of the C-5A's and if the balloon went up you would find a way to get the equipment there one way or the other. I think the consideration that we have to take is, "Is there any real money to be saved," because money is going to be a very tight commodity around here in another couple of months.

General **Allen**. Well, Senator, I appreciate your confidence, and I am a great advocate of the 747 in the CRAF program, which is, in my judgment, where it can make its greatest contribution at the least cost. But we do have a very significant shortfall of outsize intertheater airlift capability in our national structure and the C-5 is the only thing that is presently available to alleviate that shortfall.

Senator **Rudman**. To give you total flexibility.

General **Allen**. In order to deliver the combat equipment which the Army requires, their artillery, their infantry fighting vehicles, their cavalry fighting vehicles, and General Parker could go down a long list of those things.

Senator **Rudman**. Thank you very much.

Senator **Stevens**. Senator Andrews.

Senator **Andrews**. Thank you, Mr. Chairman.

It is good to be here and it is good to see you here.

Mr. Chairman, you know that Jim down there and I did our flight training together at a place called Stewart Field and we existed through beast barracks and plebe year and yearling year living down the hall from each other. So I have known that guy for a long time and he is a good one.

But that doesn't have too much to do with some of the questions that I feel I have to ask. [Laughter.]

C-17

The thing that bothers me in this whole tale of airlift capability, General, is the fact that we have a competition. They picked a bird. We have got a letter signed off by three four-star generals, another General Allen, not you, but you know about that letter, pointing up that it is extremely important that we move ahead with the C-17. We have read articles in the Washington Post and other newspapers titled "City Hall Style Politics Spill Over Into Pentagon Plane Selection."

How do we proceed with the C-5N where there appears to be so much concern over whether this plane is the right one for the job, when we have had the selection process and when we know it costs considerably more than the 747 fix that can be put in temporarily? How do we justify it to the taxpayers out there and how do we justify it on the Budget Committee that I just came from and that I just have to go back to where we are trying to cut items all through the budget?

General **Allen**. Well, I would address that in the following manner. As I indicated in my opening statement, we need a balance in our military structure between forces to be deployed and capability to deploy them. We have a very strong imbalance today. We have more forces available here in the continental United States than we are able to deploy on a timely basis to wherever the requirement might be. That puts us in a position, I would suggest, of certain risk, and that risk needs to be alleviated just as quickly as it possibly can.

I was and am a strong supporter of the C-17. If we could get that C-17 on anywhere near the same time schedule as these other alternatives, I would not be supporting this C-5 today.

Senator **Andrews**. Well, we have got 77 in effect new certainly radically changed C-5's coming into the inventory that in essence we didn't have before.

General **Allen**. Coming in at a measured pace I might add. The first prototype model is flying now and, incidentally, that is the C-5 with the new wing. It has over 1,300 hours now on that wing, and it is doing fine. The first production model went into the plant down in Georgia a couple of months ago. It will be out in March of next year and it will be 1987 before we complete that program of the new wing on the C-5's. That is a very important program. I regret that it takes so long, but it just takes that long to do it because it is a major effort.

C-5 AND C-17 TIMEFRAME COMPARISON

Senator **Andrews**. Well, since the C-5, General, is available earlier than the C-17, does this accurately reflect a fair funding profile? In other words, you are going into the C-5 and you are saying here, boom, money up front, go to work. Then you are comparing time with the C-17 which you are not funding or didn't intend to fund, and as I understand, in the comparability, in the same basis. So can you really compare those two timeframes?

General ALLEN. On that one I would have to defer to the specialist and expert in research and development who is sitting on my left, General Burke.

General BURKE. It was, we think, an evenhanded comparison, Senator Andrews. The fundamental difference is we worked out schedules that were not funding limited for either airplane. We started with the assumption that we were not going to be able to move forward very quickly with the C–17 because at that point Congress had denied us the option to do that both in 1981 and in 1982. So we thought it would be very difficult to get reconsideration in 1982 and that we would have to come back and start that in 1983, whereas we could start with the C–5B in 1982.

The C–17 is a new aircraft. It requires a research and development phase, followed by a production phase, followed by a training phase and necessarily those are sequential. It starts with a very small base. Perhaps 100 engineers are committed to the C–17 program right now and that is about all.

In contrast the C–5 does not require research and development, nor does it require additional training. We would move directly into production and the first airplane that comes off the line would be operationally available.

Senator ANDREWS. Are you sure that the subcontractors that worked on the original C–5 are available to work on the component parts of the present C–5?

General BURKE. We have done a production readiness review and we are satisfied that the majority of those subcontractors are not only available but quite eager to do that work. In the few instances where somebody is not, there are other people waiting in the wings to fill that gap.

C–5 WING MODIFICATION

The C–5 of course starts with a very large base. We have this C–5 wing modification underway which is employing a large number of people and a lot of equipment at Lockheed in Georgia. General Allen mentioned earlier that we were buying very large amounts of spare parts for the C–5 and that spreads all through the vendor system. We are buying particularly a lot of engine parts that goes back to the engine manufacturer and the engine is very comparable with a commercial engine that is in production. So there is a lot of base on which to build. There are many people working now as a factory work force base dedicated to the C–5.

Senator ANDREWS. But again I can't help but get back to what General Allen said, that he would prefer the C–17. I can't help but get back to the point that you had a competition among the various aircraft manufacturers and the C–17 won that competition. I can't help but get back to the point that I would assume that you do not plan to use the C–5 as the airlifter of the future if you say you prefer the C–17.

Now here you are coming up and we are buying an inventory, a multi-billion dollar inventory of a bird that is close to 20 years old. We have got the same kind of fuss. When you start trying to explain it to the farmer out in North Dakota and you sit down on the wagon tongue and you start trying to make him understand why you are doing some of these things, he gets that very properly disbelieving look in his eye.

We have had the debate about the B-1 versus Stealth. Do we move ahead with B-1 or do we go with Stealth? Do we go with B-1 because it is 8 years ahead of Stealth. There are an awful lot of people in this Congress and across this country that are wondering why we don't go with Stealth. I happen to think the B-1 is necessary because we have got an 8- to 10-year lag and maybe longer than that before we go with Stealth, frankly speaking.

But in this case you are talking about a year and a half lag. You are talking about a year and a half lag that could be plugged by doing something with 747's and keeping them in the Reserve fleet which is the airline industry of this country. There are a dozen different ways that we can get ourselves the time we need so that the Air Force and the need of deploying forward our Army and Marines isn't saddled with an outdated bird for the next decade or two.

General **Burke**. General Allen could speak with a little more authority than I, Senator Andrews, but I just don't think of the C-5 as an outdated airplane. I think it is a superb airplane. I think the C-17 would have been a better one.

Senator **Andrews**. Do you see the C-5 as the airlifter of the future?

General **Burke**. I think the C-5 is an airplane that will provide the preponderance of the country's outsize airlift capability well into the 21st Century.

Senator **Andrews**. I should have let you go on when you were going because you just said that you think the C-17 is a better one.

General **Burke**. Yes, sir.

Senator **Andrews**. So for a year and a half's time we are buying a second-rate bird.

General **Burke**. I can't imagine how it can be a year and a half's time. I think it is 4 years, assuming that Congress will reach an altogether different conclusion than they did in previous years.

Senator **Andrews**. The figure that we have gotten in 2 years.

General **Burke**. The 2-year figure would assume a great deal more concurrency than we would recommend or I think that Congress would accept. It would be more concurrency than is in other programs that are underway.

MANEUVERABILITY OF C-5

Senator **Andrews**. Well, in another case in congressional testimony in 1981, last year, General Allen, you stated the C-5 was limited to large facilities because of poor maneuverability on the ground. Is that still true?

General **Allen**. I don't think that was me. I think probably that was General Lew Allen.

Senator **Andrews**. OK, the other General Allen.

General **Allen**. As compared with the C-17, the C-5 does take up a lot more space on the ground and is more difficult to maneuver. On the other hand, in terms of landing on the smaller airfields and taking off from the smaller airfields, the C-5 does a very credible job and it should because it was designed to do that.

Senator **Andrews**. But in the case of these larger airfields that the Chief of Staff of the Air Force testified that the C-5 was largely limited to, those types of airfields could easily handle converted 747's with the amount of equipment needed to load and unload.

General **Allen**. If, as General Burke pointed out, one had sufficient ground handling equipment of that nature and the foresight to pre-position it at the places where you were going to have the crisis.

Senator **Andrews**. Well, we understand that the use of the C-5 on these austere and remote airfields is subject to serious question. We have a letter from Maj. Gen. Perry Smith and Under Secretary Wade describing the problems with bringing that oversized aircraft into Bitburg. Because the parking areas were too small for outsized airlifters, General Smith supported the CMMS report stating the need for a CX aircraft.

Now has the C-5's off-runway capability, and as I understand it it doesn't have any, been improved?

General **Allen**. No, it has not been improved, and that statement with regard to Bitburg Air Force Base would still apply.

General **Burke**. On the other hand, the 747 would create considerably more problems than the C-5 at Bitburg.

Senator **Andrews**. Could you provide for the record then the exact time frame, given comparable funding, between the C-17 delivery system and the C-5 delivery system? I think we are getting down to that.

General **Burke**. Yes, sir.

[The information follows:]

Timeframe Between C-17 and C-5 Delivery System

At the time the decision was made to buy C-5Bs and postpone C-17 development, the Congress had specifically denied fiscal year 1982 funds for the C-17 which meant that a fiscal year 1983 start was the earliest possible start for a C-17 full scale development program. The Air Force assessment of Congressional intent was that the $50M appropriated in fiscal year 1982 for procurement of "widebodied cargo airlift aircraft" would allow a fiscal year 1982 start for the C-5B. This meant a 6 to 8 month earlier contract award for the C-5B vice C-17.

Air Force estimates of comparative schedules were based on several factors: (1) the McDonnell-Douglas best and final contract offer; (2) discussions conducted with McDonnell-Douglas, Boeing, and Lockheed on development schedule acceleration during C-X request for proposal formulation; (3) an assessment of the Lockheed C-5B fixed price proposal; and (4) an evaluation of the time required to introduce a new system versus increasing the inventory of an existing system.

As part of the final review of the 1983 budget request, the Air Force was asked to examine alternatives for earlier delivery of airlift aircraft through increased funding. Because the C-5B program would start with an established production base (the wing modification and spares production are on-going efforts), the Air Force believed that it could be more readily accelerated than a program requiring significant RDT&E. Under the assumption that either program could be funded at the fastest prudent pace, the Air Force believed that 12 C-5Bs could be delivered up to 2 years earlier than 12-17s. On the delivery end of the production program, C-5Bs would be introduced directly into existing C-5A squadrons and would provide initial capability as soon as accepted. Conversely, the C-17 program called for a mini-squadron evaluation and operational test program which would last over a year from the initial deliveries. During this time period, no world-wide support system would exist for C-17.

The combination of all relevant factors meant that to the 2-year difference in raw delivery schedules must be added 18 to 24 months, to make a realistic comparison. The resulting comparative schedules showed a 3- to 4 year difference in C-5B and C-17 operational availability and a 2- to 3 year difference in achieving full capability.

C-17 PREFERRED

Senator **Andrews**. Again, I have to understand that all of you at the front table would rather have the C-17.

General **Allen**. I think speaking for myself I would rather have it if I could get the C-17 on a time schedule close to that of the C-5.

C-5 AND 747 MIX

Senator **Andrews**. Then in the meantime possibly fix up some 747's so they can fill the gap if we have an emergency and leave them in the Reserve fleet or the airline fleet where they are able to be called up so that we can take care of any emergency that we have. The mixed cargo carrying capability the 747 with the 77 C-5's we do have would give us the capability to move the same number of tons and the same type of material, largely speaking, that we could in a fleet of pure C-5s and we would then have a bird down the line that was a much more modern one in the inventory for roughly the same amount of money.

General **Allen**. I think I would, Senator, have to take exception with your statement that the 747's in the CRAF and the present C-5's would give us the same capability as an additional number of C-5's. It would not.

Senator **Andrews**. If you mixed them can't you carry the same amount, some articles are large and some are small. In a fleet of five 747's and five C-5's can't you carry roughly the same amount that you could in ten or nine C-5's?

General **Allen**. No, you really can't because the 747 cannot take outsize equipment.

Senator **Andrews**. But you load the outsize equipment in the C-5's in any operation in any area of the world, and I think tactics haven't changed a whale of a lot in 35 years or so. You have got an assorted mix of goods and materiel that you have to deliver. Some of it will fit in 747's and some will fit in C-5's.

General **Allen**. That is right.

Senator **Andrews**. You know, when I go on a trip I take a big suitcase and a small suitcase and some of the stuff fits in the big one and some in the little and I don't need two big ones. The same thing would be true, wouldn't it, in moving this type of material to a forward area?

General **Allen**. The same thing would be true but for the fact that we have an inadequate number of C-5's today to carry in a responsive manner the quantity of the outsize equipment which the U.S. Army requires to go with them into combat.

C-5 WINGS

Senator **Andrews**. That is right, but we have had a greater shortage of those C-5's than we will have in the couple of years because you are going to put wings on them that will last now so we have got them all available.

It wasn't too long ago that I tried to get, well, it was quite a while ago. We had a rush order and we were going to move some Steiger tractors, four-wheel drive tractors over to Australia to sell them American-made tractors in competition with the Canadian-made tractors, and if we got them there first we could sell them.

The military had an agreement that we could use some of those planes if we paid for them and all that. We found low and behold that there was no way we could put in a C-5 and move them over there because the C-5 wings weren't strong enough, and that is when I first became exposed to the C-5 problem. We made the sale but we did it by a rush sea-type thing. We haven't had those C-5's in the inventory for a whale of a long time.

It is my thinking with new ones coming in, refitted ones coming in that we would be better off waiting that 2-year period and getting something that all four of your, including General Parker, whose goods are what we are transporting, agrees would be a much better bird.

General ALLEN. Well, I would make two comments to that, Senator.

One, although I was not around, I am quite sure the reason that the C-5's were not available to carry those tractors was that they were holding onto the hours that are available on those wings in the event of an emergency, and we are still doing that today as a matter of fact.

Senator ANDREWS. Then you think under the new circumstances that there wouldn't be some glitch in what came off the assembly line in that same old plant?

General ALLEN. I am quite confident there will not be a glitch of that nature.

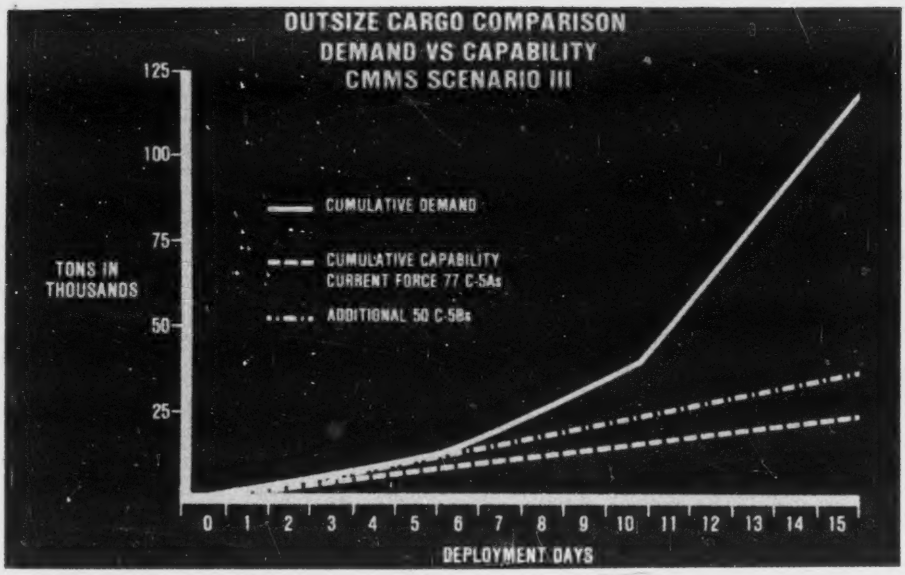
Senator ANDREWS. Well, I would hope not. I appreciate your testimony.

Thank you, Mr. Chairman.

Senator STEVENS. Thank you.

OUTSIZE CARGO DEMAND

I think what we need to do is find out how large is this outsize requirement. Can you get that chart back up there that showed how you are going to meet the CMMS requirements?



(Chart 27)

OUTSIZE CARGO AIRLIFTED

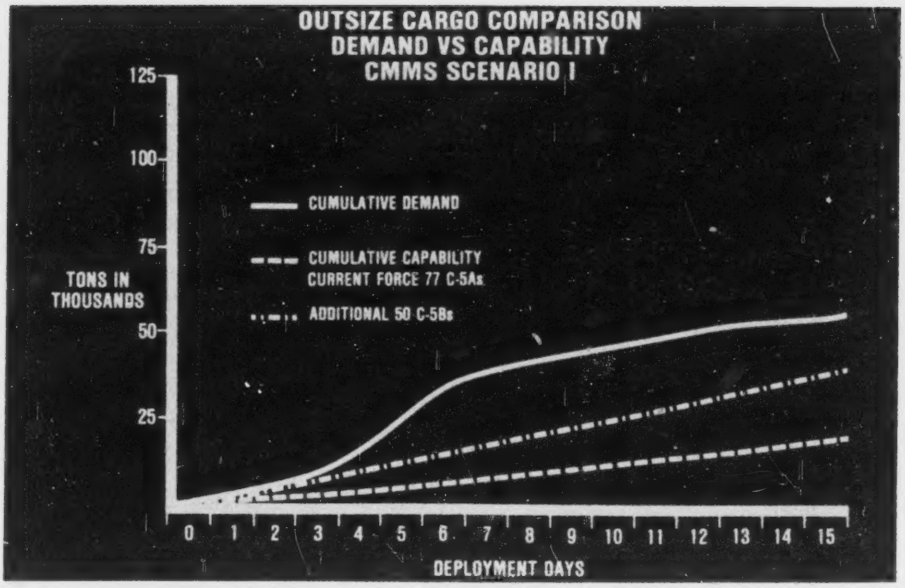
Senator **Stevens**. While he is doing that, what percentage of your movement in the time frame you had set is outsize cargo?

General **Burke**. Most of the scenarios show that about 30 to 40 percent of the cargo to be airlifted is outsize.

Senator **Stevens**. Now, when you look at a chart like this, this says "Outsize Cargo Comparison—Demand Versus Capability—Scenario III,"

General **Burke**. Yes, sir.

Senator **Stevens**. We were looking at Scenario I before. Have you got one of those for Scenario I?



(Chart 28)

TOTAL DEMAND

Senator Stevens. Okay. Now that is the outsize cargo demand.

General Burke. Yes, sir.

Senator Stevens. In that same timeframe what is the total demand?

General Burke. Typically this will represent about one-third of the demands, and two-thirds will be non-outsize.

General Parker. Mr. Chairman, let me see if I could put it in a term that would be useful to you. Let's talk in terms of the percentage of outsize equipment by type division. For example, in our armored division today, 44 percent of the equipment in that division is considered outsize with two things that would drive it to be outsize, either weight or bulk. In the case of some of the aircraft that we would have to load, they would be outsize by bulk cube. The infantry fighting vehicle and the tank, et cetera, would be outsize by weight. The 44 percent compares to 41 percent in a mechanized division, and roughly 25 percent in an infantry division.

CARGO MOVEMENT FOR RDF

Senator Stevens. That is equipment. We are hauling a lot more than equipment. We are hauling supplies and ammunition. I am talking about total cargo movement now in connection with the Rapid Deployment Force. How much of the Rapid Deployment Force movement is outsize cargo? I was led to believe it was less than 20 percent. Now am I wrong?

General **Allen**. In general it is 20 to 30 percent by weight of the equipment to be moved, of the supplies, of the sustaining ammunition and what have you. Roughly 20 to 30 percent of it is outsize by weight.

Senator **Stevens**. Well, you know, one tank weighs the same as 20 jeeps. Now that is quite a concept of movement when you look at the items to be moved and then the necessity for aircraft. I have the impression that this outsize cargo demand is being stated, General, very frankly in this presentation. I think we are going to have to get down to some numbers to do it.

SIZE OF AIRFIELD FOR RDF

Also, the short field arrival airfield. In terms of your projections for moving the Rapid Deployment Force, what is your assumption for the size of the airfield you must go into? Is it a 3,000-foot runway for the Rapid Deployment Force? I can't imagine that we are going to move our forces into a 3,000-foot runway.

General **Allen**. No; it is not a 3,000-foot runway.

Senator **Stevens**. That is what we are talking about, the difference between a five and a four. The 17 was 3,000 foot. The C-5 is, what, 4,000 foot. What is the 747? What is its short field capability on landing?

General **Burke**. About 7,000 feet.

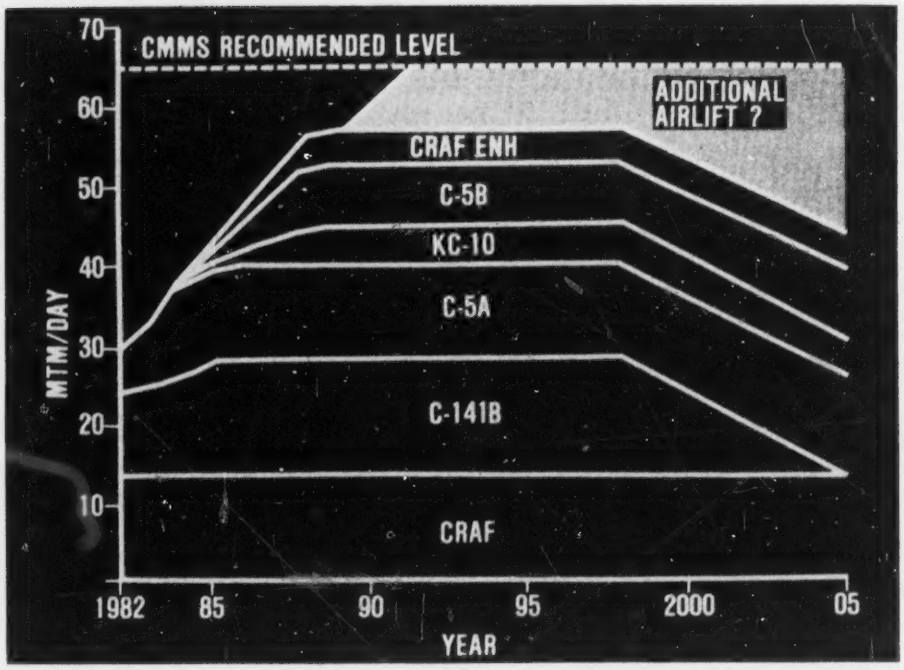
Senator **Stevens**. How many times are you going to move the RDF into something less than 7,000 feet? Has that been projected?

General **Allen**. Right now we are not going to move them into anything less than 7,000 feet because we don't have anything that we can put into the shorter airfields. The C-5 in some cases, yes, it can land and it can take off, but you have the ground maneuvering problem associated with the C-5. We are going to do the best we can with the airfields that are there wherever they have to go, taking into account the equipment limitations within the present fleet.

General **Burke**. I think it is worth pointing out, Mr. Chairman, that in the measure of merit I showed for the brigade days in theater we did not penalize the 747 at all for inability to land on shorter fields or for the difficulties in prepositioning the equipment or whatever. We simply don't know how to model that so there was no penalty attached to it. To the extent that is a penalty, my figures would understate the value of the C-5 relative to the 747.

CMMS RECOMMENDED AIRLIFT REQUIREMENT

Senator **Stevens**. Let's approach it from another way then. Where is the chart that showed the total CMMS requirement and how you were going to get it, starting with CRAF at the bottom and then what you have now with the existing airlift.



(CHART 29)

CRAF FORCE

Senator STEVENS. That one. The interesting thing about that one is that we thought we had a policy that CRAF was going to be the basis of your airlift capability. Yet, if you look at that it changes from the concept of being about a third to being about a fifth of your capability. Why have we not done something to get outsize equipment into CRAF?

General BURKE. The CRAF force is sized by the commercial marketplace and the configurations of the airplane by the commercial marketplace. There is no outsize capability in it. To the extent that it is available, we have all of the freighters——

Senator STEVENS. You are using them now under contract, aren't you?

General BURKE. Yes.

Senator STEVENS. If you told the contractors that starting in 1984 or 1985, or whatever it is, you want 20 percent of that CRAF to be outsize equipment, they would be there, wouldn't they, rather than lose the business?

General BURKE. No, sir, they wouldn't.

Senator STEVENS. You don't think they would provide it on a contract basis with the Air Force? Have you tried?

General ALLEN. Well, as a matter of fact, you see, we tried——

Senator STEVENS. General, have you tried? Have you asked the commercial sector if they would go into the outsize C-5 type equipment under contract with the Air Force so that those planes would be being flown for you and for a lot of other people but basically under contract with you in this period?

General **Allen**. We have tried in the context of the CRAF enhancement proposal, the RFP that we went on the streets with last year, to get the carriers to convert their passenger-carrying, wide-bodied jets to cargo capability and make them convertible.

Senator **Stevens**. That is 747's. That is not outsize.

General **Allen**. That was 747's and DC-10's as a matter of fact.

Senator **Stevens**. I am talking about outsize. We are looking here and you say you have a growing demand for outsize equipment as we go into the RDF concept and the basis for our whole airlift program is CRAF. Yet, nothing has been done to get the civil side of the airline industry in cargo into the outsize field.

What you are saying to us is, look, we have this CRAF, that is 747, that is oversize capability. We have 141's, that is oversize capability. But look we have C-5A's at the present time that make up about what? According to that chart in 1982 it is about 5 out of 30 in terms of the level that you have right there. That would be about one-sixth of your current capability is outsize; is that right?

General **Burke**. Yes, sir, but that goes to 12 when we complete the rewinging and buy the spare parts.

Senator **Stevens**. All right. It goes to 12 out of what, 40?

General **Burke**. Forty.

Senator **Stevens**. You have then roughly one-third of it; right?

General **Burke**. Yes, sir.

Senator **Stevens**. As you go up to about 60 your CRAF is one-fifth or less in terms of your participation because of your definition of the outsized equipment. If the C-5B is such a good interim solution, why didn't you go to the CRAF people and say, look, we will contract with you. You get the C-5's and we are going to go temporarily to the 747's that are on the market. We want C-5's in this thing, too, over the long run, but we are going to C-17's.

Why did we give up on the C-17's? The message that went to you last year was we can't start CX now. But we didn't say we aren't going to start CX period. At least that was our message.

GAO REPORT ON AIRCRAFT DELIVERY

Senator **Andrews**. Mr. Chairman, that is the key thing that I was trying to develop, and I think all four of them agreed that they would rather have the C-17 if they could get it. In the last few moments I have had put in front of me a GAO report that says that Lockheed proposes to deliver the first C-5 38 months after contract go ahead. They plan to deliver the 12th aircraft 56 months after go ahead with full C-5 program TOA devoted to the C-17. McDonnell Douglas asserts the C-17 could make first flight 40 months after contract go ahead and could deliver the 12th aircraft 56 months after go ahead right on target totally tangent.

Now that blows up this 2-or 3-year interim that we were talking about a minute ago. What comment do you have on that GAO report?

General **Burke**. GAO is citing the McDonnell Douglas proposal.

Senator **Andrews**. GAO is citing, but they are the guys we have to depend on when we are trying to get to the bottom of how soon can we get what bird.

General **Burke**. I don't think GAO is making a value judgment there as to the validity of the McDonnell Douglas proposal.

Senator **Andrews**. Well, GAO includes in there a statement from the Administrator of NASA that says the more modern C-17 design is all evolved from considerable industry, NASA and DOD research. That design is generally conservative and presents no more technical risk than going back to trying to put together an assembly line for the old one which gives them the justification for saying that the delivery will come on exactly the same time frame, 12 aircraft 56 months after go ahead which blows into a cocked hat the 2-, 2½-, and 3-year delay that we were talking about a minute ago.

Now doesn't GAO know what they are talking about? Doesn't NASA know what they are talking about?

General **Burke**. Obviously both know what they are talking about, but I find the claim that you can do the research and development of a brandnew aircraft and bring it into the operational inventory in the same time that you can restart an established production line with a production base is incredible. There is simple no way it can be done. And it is not 2½ years. It is more like 4 years if you properly consider operational availability.

Senator **Andrews**. If you could dig into that a little more and look at it. It is 4 years, but they are saying they will bring the 12th aircraft 56 months after go ahead. That is a little bit more than 4½ years, but it is in the case of both birds.

General **Burke**. Well, I think with a program that would have a moderate risk, a prudent risk that would be acceptable both to us and to you, it is on the order of a 4-year difference.

Senator **Andrews**. Maybe we should make a little more comment in the record and kind of solve that GAO stuff.

C-17 Design All Evolved . . . Industry, NASA and DOD Research

A discussion of the Air Force assessment of C-17 and C-5B relative operational availability is included earlier in the record.

The NASA review cited by the GAO confined itself to a general technology assessment which addressed maturity of technology, the associated technical risk, the likelihood of achieving the claimed performance, and the identification of potential problem areas requiring particular attention during development. The NASA review did not assess cost and schedule. With regard to the C-17, NASA stated:

"The technology advances featured in the more modern C-17 design have all evolved from considerable industry, NASA, and DOD research. *In most areas* (emphasis added), the design is generally conservative and presents no more technical risk than that entailed in the new commercial transports currently under development. These commercial developments, in fact, lead the C-17 development by a comfortable margin and provide a basis for confidence that the projected C-17 advances in engines, flight control systems, cockpit automation and displays, and other critical areas will be achieved successfully and economically."

The NASA review then went on to identify four C-17 technology issues which suggest the need for early resolution. Such issues are normal in any new transport aircraft development program and do not suggest that C-17 development would involve any undue technical risk. However, resolution of technical issues can cause schedule delays.

The C-17 delivery schedules cited by the GAO were provided to them by McDonnell Douglas. McDonnell Douglas states that if the entire C-5B funding request were made available to them, they could deliver the 12th C-17 56 months after contract award. If 10 percent of the funding request is withheld for other government costs associated with the program, they could deliver the 12th C-17 62 months after contract award.

The actual portion of C-5B budget authority allocated to flyaway costs (less engineering change order/management reserve funds) is lower than the amounts McDonnell Douglas estimates is required in the third and fourth years of their 62 month C-17 schedule. This would likely extend the delivery dates offered by Douglas. Further, delivery of the 12th C-17 does not represent the same operational capability as delivery of the 12th C-5B, since C-5Bs will go directly into operational service along with the C-5As already in the inventory.

OUTSIZE EQUIPMENT IN CRAF

Senator STEVENS. I yielded to you because I thought you were going to pursue the same questioning I was.

I want to get back again to CRAF. Why have we not tried to get outsize equipment in CRAF as an interim solution to this problem and really attack the C-17 or CX?

General ALLEN. Mr. Chairman, in last year's National Strategic Mobility Conference which includes DOD, military and the civilian air carriers who are interested in this, this was discussed, and by virtue of the fact that there is no commercial market whatsoever for outsize carrying capability——

Senator STEVENS. There is if you contract with them.

General ALLEN. The airlines took the position that you military, you take care of the outsize with organic equipment and we will help you out with the oversize and the bulk.

Senator STEVENS. Well, again, we are talking about interim solution now, an interim solution in terms of wide bodied availability over this near term using CRAF and still concentrating on the C-17, which as I take it, all of you would agree is the best airplane for the RDF ultimately; isn't that right?

General ALLEN. Well, I think without any question that we would agree with that.

Senator STEVENS. If we moved the RDF to the Persian Gulf, how much of that total RDF is outsize?

General PARKER. Sir, I didn't want to interrupt your train of thought a minute ago, but concerning the question you posed earlier and the one you pose now, I have the exact short tonnage for three scenarios that were considered in the congressionally mandated mobility study, the tonnage for bulk, oversize, outsize total and then the resupply required for the first 20 days. Now I could read any of that for you or provide it for the record.

Senator STEVENS. I am just interested in outsize right now.

General PARKER. You want it in weight?

Senator STEVENS. Not oversized. Weight and volume if that is what you have.

General PARKER. Weight and volume. In the first 20 days in Scenario I, 34,686 short tons would be outsized or 27 percent of the total.

Senator STEVENS. All right.

General, have you a comment about that?

General PARKER. Senator, that is the RDJTF, plus its Tac Air.

Senator STEVENS. That is our ultimate goal, isn't it, to fulfill RDF roles here?

General ALLEN. And the requirements for our European reinforcement and Korean reinforcement.

Senator STEVENS. All right.

General VOGT. Could I speak to that for a moment. In the mobility study we tried to do a number of things, and one of the things we tried to do was add flexibility to our thinking because for a long time we had been thinking too much about NATO and all of a sudden the Persian Gulf was a big surprise.

So we tried to expand the thinking about the mobility problem by looking at four scenarios. We tried to evaluate our mobility requirements based on a broad range of scenarios rather than any one.

IMPROVEMENT OF CRAF

Senator STEVENS. I understand that, but it seems to me that in the process you have abandoned the concept that we thought we had mandated, which is that almost half of the current capacity is CRAF. Almost half of it is. It is about 40-plus percent. As you come out of this you end up with CRAF at somewhere less than 20 percent, and probably down around 15 percent. It is because you are stating such a high requirement for outsize equipment and there is nothing outsize in CRAF. I see nothing to indicate that you are doing something to get it in there.

It seems to me that the interim solution should have been to jack up CRAF with a contract that would be an inducement to the private sector to get that high wing, outsize body configuration into their fleet and at the same time keep after the C-17 which is what we ultimatly want, just as we ultimately want Stealth.

You have opted to go to the solution which in my opinion is going to forestall the C-17 forever. I am looking for those figures, General, of the total demand on the budget in this period of time. If you look at Stealth and B-1 and the fighters and the airlift and the total expenditure in terms of dollars that we have coming at us from the Air Force for new acquisition, the conclusion last year was that something had to give last year, and it was the C-17. That didn't mean it couldn't come back in.

Instead we have come back in with what looks like a more expensive option in the near term. I don't understand you putting us in that position where the near-term option becomes more expensive for airlift. Again, something else has to give if we are going to meet your airlift requirements. What is it going to be, fighters? Is it going to be a B-1 delay? What is it going to be? I don't understand why you gave us this option, frankly, and why you have abandoned C-17 as the far-term option and didn't look for some interim solution that would keep us within our budget without us cutting something else out?

Now, am I being unfair to you?

General ALLEN. Yes, sir. I think you are.

CONTRACT WITH CIVILIAN FLEET

Senator STEVENS. Well, tell me why that is unfair. I think there is another solution and it was in a contract with the civilian fleet.

To my knowledge, you haven't let any C-5 into the civilian fleet yet because you have given the inducement to do it.

General **Allen**. Well, I am not sure that we would know what that inducement might possibly be for a civilian airline to operate C-5's. Certainly the amount of moneys that we contract in peacetime with the Civil Reserve Air Fleet would not be sufficient for any carrier to undertake the investment of procurement of C-5's.

Senator **Stevens**. Well, have you looked at what you would have to commit to them in order to get it there? Let me tell you when they are moving rigs in and out of my country, you know up north, and they are moving all the camps around every time there is a new discovery or a new mine opens or a new oil field opens, they are looking now to outsize bodies and I know that. But I don't think they can afford it unless they have some of your money involved in the basis for that thinking, too. I think they would move into the wide C-5B body concept for you and leave you in the C-17 in the long run if you would give them the inducement to do it. Whatever dollars they put in there in the interim would be savings as far as the budget is concerned. Whatever civilian use there was would be a saving. I really think you should run some computers on it.

I am disturbed over the abandonment of the CRAF concept. As I see it, all we are going to do is get more and more heavy equipment with more and more tonnage in the equipment and more and more wide equipment to meet this increased wide outsized capability you have. It is a concept that CRAF is going to shrink and shrink and shrink and we are going to lose the CRAF capability that is there as a reserve if you don't do something about it.

General **Allen**. Well, if I could make a couple of comments there.

Senator **Stevens**. Yes, sir.

General **Allen**. First, this addresses only cargo. If you factor in the passenger carrying capability also, the CRAF does provide today over 50 percent of our overall capability.

Senator **Stevens**. I understand that, but we are just talking cargo here, General. By definition that is all cargo.

General **Allen**. That is all cargo, that is right.

Senator **Stevens**. Right now almost 50 percent of the cargo is CRAF.

General **Allen**. No, sir, I don't believe so.

Senator **Stevens**. Well, look at your chart; 14 out of 30 today, 1982.

General **Allen**. That is because of the current limitations on the C-5 and the lack of spare parts, as a matter of fact.

Senator **Stevens**. All right. Well, take it then in 1983 or 1984 when you crank in these rewings. You still have 14 out of 36.

General **Allen**. Well, when you take us out to 1986 when we have all of our spare parts and we can use the full utilization rate of the C-5's and C-141's, the full wing of the C-5, then it is running about 30 percent, 30 or 35 percent.

Senator **Stevens**. Well, even that is abandoning the Congressionally mandated concept of CRAF as far as cargo and passengers is concerned.

IMPROVEMENT OF CRAF PROGRAM

General **Allen**. Mr. Chairman, let me tell you that that is exactly the opposite of the way that we are trying to work with the CRAF. As a matter of fact, I left a meeting of the Airlift Committee of the National Defense Transportation Association last night in order to be here. The subject of that meeting is how to work better with the CRAF and how to devise a CRAF enhancement program to improve the CRAF program in a way that economically makes sense to the Government as well as to the airlines. We are looking at some very far out type things such as some leasing arrangements, for example, to see if we might put together a formula which makes sense to present to the Congress. We are working very hard and the last thing——

Senator **Stevens**. I wondered why someone didn't come up with instead of the Boeing option with a temporary lease of the 747's that are surplus on the market right now. They are on the market because the airline industry is in trouble. When the economy comes back they are going to want them again.

General **Allen**. That is right.

Senator **Stevens**: I don't know why we couldn't figure out something to extend the tide.

Well, General, Senator Eagleton, I am sure, has some questions. I have some others here, too. I just have a gut feeling that that chart answers my questions, and that is, we are on a course of abandoning the CRAF concept in cargo on the course you are on.

SERIOUS PROBLEM FACING CRAF

General **Allen**. Before we leave that I would like to address one other issue which is a very serious one. It is the possibility that that CRAF line will start going down as a result of the economic difficulties the airlines are having right now. If they end up with a number of surplus airplanes which they are unable to sell here in the United States and they sell to foreign carriers, then those air frames are lost to the CRAF, and that is a matter of great concern to us.

Senator **Stevens**. I had that question of how much it assumed in terms of the capability of these planes that are about ready to be surplused by the airlines.

General **Allen**. That gets into a really separate issue of the deregulation of international air travel which is giving them a lot of trouble, but it is probably not a proper subject for this committee.

Senator **Stevens**. Senator Eagleton.

Senator **Eagleton**. Thank you, Mr. Chairman.

GAO REPORT ON AVAILABILITY OF C-17 VERSUS C-5

At the outset let me pursue the matter that Senator Andrews was inquiring about just a few moments ago. Let me read something. It is pretty short and thus it is preeminently readable for the record. Let me read this question and answer excerpt from the GAO report. This was a report in preparation for Senator Proxmire.

"GAO Question 8A" it is entitled.

Question: What did the McDonnell Douglas data show on availability of the C-17 versus the C-5?

Answer: Lockheed proposes to deliver the first C-5 38 months after contract go ahead, and they plan to deliver the 12th aircraft 56 months after go ahead.

With full C-5 program TOA devoted to the C-17, McDonnell Douglas asserts the C-17 could make first flight 40 months after contract go ahead and could deliver the 12th aircraft 56 month after go ahead.

Now that is the verbatim quote from the GAO report. That report says based on the data supplied by Lockheed and the data supplied by McDonnell Douglas that insofar as the delivery of the 12th aircraft is concerned, they both come out precisely at the same time, 56 months after go ahead, in both instances identical.

Now, General Burke, is it your position that the Lockheed data supplied to the GAO is 100 percent totally correct and the McDonnell Douglas data supplied to the GAO is 100 percent total erroneous or puffed or inflated or imagined or what?

General BURKE. I wouldn't put it in terms that strong. I think the McDonnell Douglas data makes assumptions that are invalid. I think it assumes that the Air Force and the Congress would be prepared to accept a great deal more concurrency than we have in the past or are now and that we would in effect be willing to commit to production before we had demonstrated through research and development that we knew what we were going to produce, and I just don't think we are going to do that.

Senator STEVENS. They both don't start on the same date, Tom. That is the problem.

Senator EAGLETON. Well, it says with full C-5 program TOA devoted to the C-17, McDonnell Douglas asserts, et cetera. If you are starting on day one today and if you go totally the C-17 route, starting today, according to this data supplied by the GAO and included in the GAO report, the 12th aircraft McDonnell Douglas will be delivered 56 months after go ahead which is the identical timeframe for the 12th aircraft Lockheed 56 months after go ahead. That is what the English language says.

So it is your opinion then, General Burke, that the McDonnell Douglas data is erroneous, and erroneous by magnitude of 3 to 4 years; is that right?

General BURKE. Well, there are other factors that are considered there. I pointed out earlier that the first delivery of the C-5 provides operational capability. The first delivery of the C-17 would not. It would go to a training unit and we would engage in training and developing the logistics structure for that period of time.

Also in there I think is an unwarranted assumption that you can start the C-17 program now. I don't know how we would do that given the legislative history. This year in 1982 the Congress zeroed out the C-17 proposal and there is no money there. That would assume that we would somehow become a great deal more persuasive on that issue than we were in past years.

GAO REPORT ON C-5A WING MODIFICATION

Senator EAGLETON. Now let me refer to another GAO report. This one is dated March 22, 1982, the caption of which is "C-5A Wing Modification—A Case Study Illustrating Problems" et cetera, et cetera. Are you familiar with that report, General?

General BURKE. Yes.

Senator EAGLETON. On page v, it is one of the summary pages before the main text, it says as follows: "Lockheed was unwilling to warrant the C-5A service life after modification." Then it goes on to point out that even though this is going to be a fixed price contract, et cetera, when it is all said and done, when we have this substantially modified C-5 that is supposedly going to be a top-flight aircraft, Lockheed was still unwilling to warrant the C-5 service life after the modification. That is what the report says, (a) is that an accurate statement of fact and (b) does that trouble you?

General BURKE. I think it is asking too much of a company to warrant a service life of an airplane that is going to take it well into the next century.

Senator EAGLETON. Wait a minute. This is a plane that has been a turkey. It has been a plane that has had problems with its wings. It is not going to have a new life with new wings and you are saying it is asking too much to ask Lockheed to warrant that after all the work is done on the new wings, it is asking too much to warrant that it will work?

General BURKE. No. There is a warranty that comes with it.

Senator EAGLETON. That is very, very limited.

General BURKE. I think the GAO further said that it——

Senator EAGLETON. It is far less than a Chrysler warranty. My God, if Chrysler can warrant their cars for 5 years. It is less than a Ford warranty. It is less than an American Motors warranty. It is less than a GM warranty. They are going to warrant it for 5,900 cumulative flying hours which the GAO points out is a pittance.

Now considering the problems the plane had and considering the wing was one of the biggest hang-ups, and considering now they are going to make good on what they previously made bad, it is asking too much that they warrant to you and to the people that the damn thing is going to work?

General BURKE. It is going to work and——

Senator EAGLETON. Well, why can't they warrant it, and why wouldn't you insist that they warrant it based on the previous track record? This is not a virginal aircraft. [Laughter.]

General BURKE. The 30,000 hours of course extends well into the next century and would require an understanding of exactly how we would fly the airplane and what conditions and just a lot of factors.

Senator EAGLETON. Was the GAO misguided and misdirected when they highlighted this matter in their report of March the 22nd?

General BURKE. I read that some time ago, but I thought the GAO also made the point that the warranty compared favorably with the normal practices.

Senator EAGLETON. No, that is not what it says. Anyway. I will put that excerpt of the report into the record in full, if I may, Mr. Chairman.

Senator STEVENS. Well, let's put also the thing that says "GAO believes the limited warranties on the H-Mod contracts apparently are consistent with commercial warranty policies."

Senator **Eagleton**. Yes, commercial warranty policies on new equipment that has not had a previous track record of colossal failure. I can't understand when there is a major problem——

Senator **Stevens**. Chrysler guaranteees 5,000 miles on a car that is going to go 100,000 miles. This is a 5,000-hour guarantee on——

Senator **Eagleton**. Five years they guarantee now.

Senator **Stevens**. Well, it is still going to be 5,000 or 5 years, as I understand it. But in any event, this is 5,000 hours——

Senator **Eagleton**. The wing modification has been the biggest single hang-up with respect to the C-5 from its outset. You know that, Mr. Chairman. They are now going to correct the blunder.

Senator **Stevens**. It is the equivalent of a 5-year warranty when you go 5,000 hours on a plane like this.

Senator **Eagleton**. All right.

Senator **Stevens**. That is all there is to it. That is pretty good warranty.

Senator **Eagleton**. I would think as a prudent contractor if I had a lemon and they were redesigning the lemon to correct the error that had caused it to be a lemon that I would want them to warrant after going at it a second time that it would work and I don't think that is asking too much.

Senator **Stevens**. The C-5's have worked, my friend. I think that impression that it has not worked is wrong.

Hadn't the C-5 worked? Hasn't it done its task? We now have a revision of it——

Senator **Eagleton**. Why are we modifying the wing if it is such a perfect aircraft?

Senator **Stevens**. Because it has a greater life now with the new wing.

Senator **Eagleton**. And it didn't have much of a life with the old one.

C-X PROGRAM

Now I will go on, General Burke. On December 7, 1981, Secretary Weinberger certified to the Congress as follows: "The national security requirements for the United States for additional military airlift capability merits initiation of the C-X program." That was last December of 1981.

Question, was not the C-5 considered as a candidate for the C-X contract award and was found to be nonresponsive to stated airlift mission requirements?

General **Burke**. The C-5 was not responsive to the C-X request for proposal.

Senator **Stevens**. In what way, because of outsize cargo, weight, or what?

General **Burke**. Austere airfield capability and various features that were spelled out in the request for proposal. Lockheed in fact did propose a C-X, an altogether different airplane than the C-5, and additionally they gave us an unsolicited proposal for the C-5 as well.

Senator **Stevens**. One of the stated requirements was the RDF concept of taking the outsize cargo and dropping it on almost no airfields, wasn't it?

General **Burke**. Yes, sir. Well, very, very small airfields and very austere airfields.

Senator **Stevens**. But the C-17 or C-X design really was for a specific purpose, that we foresee the need for rapid deployment in the future in places where there are no airfields in some instances, right?

General **Burke**. Or at least very small airfields.

Senator **Stevens**. So we are not meeting that with the C-5 or 747's, are we?

General **Burke**. The C-5 will not meet those requirements and the 747 would not meet it by a wider margin.

Senator **Stevens**. You have a case. I just hope you don't overstate the problems with what we have to rely on between now and——

Senator **Eagletion**. Yes, I think they have got a very good case. I am delighted you agree.

C-17 BEST MEETS ALL REQUIREMENTS FOR AIRLIFT

The next question. Is it fair to say that there is total agreement between the Air Force, Army, Marines, and the JCS that the C-17 best meets all of the requirements established for the airlift portion of the Rapid Deployment Force? That is a follow on to the exchange between you and Senator Stevens.

General **Burke**. Yes, sir.

Senator **Eagleton**. Has there been any significant change in DOD airlift requirements since the C-17 was selected by the Air Force as the plane best suited to its intercontinental airlift mission?

General **Burke**. No, sir.

Senator **Stevens**. May I interrupt you just a minute.

Senator **Eagleton**. Yes. You are having a good day. [Laughter.]

Senator **Stevens**. I am trying to be curteous to my old friend here.

General, I understand you have a commitment at noon.

Senator **Eagleton**. I have one more question and I won't interfere with that.

General **Allen**. I will stay as long as you need me.

Senator **Eagleton**. General Burke, is it not true that the Pentagon is again pursuing the C-X alternative via an inclusion in their Program Objectives Memorandum. POM, by including in the POM a line item, and I quote, "an advanced airlift aircraft"?

General **Burke**. We continue to believe in the C-17 and the need for it. The first step in the process has been to ask congressional agreement to obligate the nearly $32 million that was authorized and appropriated for the C-X in 1981. If the agreement is forthcoming on that, we would commit that money in mid-May, and that would provide for a pre-full-scale development risk reduction phase for that. We plan to address the remainder of that in the 1984 budget process, and I am personally optimistic that we can continue with the C-17 because DOD airlift program, as we now have it, does not fully meet the requirement. There is still a deficiency even after we buy C-5's and KC-10's, and that deficiency will increase as C-141's and 130's age.

Senator **Eagleton**. Well, my specific question is, and I will put it this way. Does not the current draft of the POM, the Program Objectives Memorandum, include a line item for "an advanced airlift aircraft"?

General **Burke**. I am not sure I have seen the current draft——

Senator **Eagleton**. Somebody behind you is nodding.

General **Burke** [continuing]. But I would expect it does. I would hope it does.

Senator **Eagleton**. That is all I have, Mr. Chairman.

[The information follows:]

LINE ITEM OF AN ADVANCED AIRLIFT AIRCRAFT IN THE POM

The DOD fiscal year 1984 Budget will be finalized on or about 1 Feb. 1983. Preliminary assessments of this budget are currently underway within DOD. Consistent with the policy of several administrations, these preliminary deliberations are not releasable until the fiscal year 1984 budget is finalized.

ACTUAL NEED FOR MORE AIRLIFT CAPABILITY

Senator **Stevens**. The Senator from Georgia.

Senator **Mattingly**. This is my second or third meeting here. I am not a member of this subcommittee, but I am a member of the Appropriations Committee and Senator Stevens was kind enough to allow me to attend. So I will try to put aside my parochial interests and ask a couple of questions.

It is our duty to try to make a decision based on the facts and that is what I think everybody is trying to do. I think that everybody here agrees that more airlift capability is needed.

PURCHASE OF 747'S

Let me ask you one quick question because I think the debate should have been over after the C–X versus C–5 decision was made. I think the taxpayers benefitted from that decision. Now another offer came along, from Boeing, of whether to use 747's.

Isn't it true that if you were going to get 747's, which we know are not capable of carrying outsize cargo, that there is a better way to procure them than purchasing them outright?

General **Burke**. I would hope that if the decision were made to buy 747's we would be smart enough to figure a way to not have them in the operational Air Force but have them flown by commercial airlines.

Senator **Mattingly**. I think my compatriots here, Senator Stevens and Senator Eagleton, would be impressed by the fact that you would save many billions of dollars in fact if you put them in the CRAF program, right?

General **Burke**. That is correct, and that should be our first goal.

Senator **Mattingly**. Almost $6 billion would be saved, if I am not mistaken, by placing 747's in the CRAF program; isn't that true?

General **Burke**. CRAF is much cheaper than owning them.

Senator **Stevens**. But how are you going to keep them there if they are going to be sold by the airlines? That is the problem.

LEASING 747'S

Senator **Mattingly**. Isn't it clear, though, that in an emergency you would lease the 747's because that is the cheapest form of airlift?

General **Burke**. Yes.

Senator **Mattingly**. Is that the only alternative to lifting outsize either C-X or C-5?

General **Burke**. Yes, sir, those are the only outsized airlifters that are around.

Senator **Mattingly**. The real need is in airlifting combat support items; isn't that correct?

General **Burke**. Yes.

Senator **Mattingly**. Is the need going to decrease or increase over the next few years for outsize airlift capability?

General **Parker**. It is going to increase, sir.

Senator **Mattingly**. Do you have any figures on that?

General **Parker**. Yes, sir, I do. We project that the armored division, for example, that currently has 44 percent of its equipment outsize, will in fact increase to 58 percent just by modernization in order to meet the threat. By comparison the mechanized division will increase from 41 percent outsize to 56 percent outsize.

AIRLIFT VERSUS SEALIFT

Senator **Stevens**. General, isn't the question there how much of that you are going to have to deliver by air and how much you are going to move by sealift? We are assuming that you have an immediate need to get some things there before the sealift could get there, but not all of that increase is going to go by air.

General **Parker**. That is correct, sir, and that is a good point. Take the NATO, for example, wherein we have POMCUS stock on the ground already. The thing that can be misleading about that is the majority of the items that are short in that POMCUS stock are in fact outsize items, big, heavy, bulky, high-dollar items that are currently short in our inventory, and I can give you examples of those.

Senator **Stevens**. I understand that, but you are still only going to move so much of it by air because the sealift, what is the sealift's capability, 25 days, 24 days for NATO?

General **Parker**. Yes, sir. Obviously some of it would go by sea.

Senator **Stevens**. To look at the increased requirement is not necessarily dealing, well, a proportion of it is dealing with this airlift problem, but not a great deal of it. At least I would hope that you would give us some figures on how much of that increase has to be moved by air. As outsize requirements increase, the percentage increases, how much of that would be moved in the first 20 days?

General **Parker**. Yes, sir.

General **Vogt**. Sir, I would like to point out that in the mobility study when we derived the requirements, we used the 1986 force. The numbers he is talking about are a little bit later. But we accounted for the heavier Army that we will have in the future. We did the tradeoffs between the prepositioning and the airlift. The numbers we arrived at show that about 10 percent of the equipment needed for a unit is not prepositionable and would have to be flown over by air.

We did not, for instance, fly tanks in any of our studies because for these scenarios it was determined that tanks could be prepositioned. So we did not fly them. Those factors are taken into account in the Congressionally Mandated Mobility Study where we divided up the requirements between the Army for prepositioning, the Air Force for airlift and the Navy for sealift.

Senator STEVENS. Senator, go ahead. I am sorry to have interrupted you.

Senator MATTINGLY. Is it true, though, if we are talking about real need, that we not only need an aircraft to carry outsize but we need also more aircraft to carry oversize and bulk? Isn't that a fact?

General BURKE. Yes, and of course, the proposal is to buy some of both. In fact, it is 9 million ton-miles of nonoutsize and 8 million ton-miles of outsize.

Senator MATTINGLY. Isn't it also true that the 747 could fit some of that oversize or bulk type?

General BURKE. Yes, the 747 can carry oversize and bulk quite well.

Senator MATTINGLY. Going back to that point and to further repeat, it is better to lease those than to buy those as far as a cost saving to the Federal Government; isn't that true?

General BURKE. Yes, sir.

Senator MATTINGLY. Those are all the questions I have, Mr. Chairman.

Senator STEVENS. All right. Thank you. I am sorry for interrupting you, my friend.

COMMERICAL ALTERNATIVES

Let's go back to this whole business of the commercial alternatives. Is it fair to say that since C-5's and KC-10's do not meet your requirements, that we are dealing with an interim solution, an interim decision here in this budget request?

General ALLEN. I think it is fair to say we are dealing with a partial solution. Certainly I would not envision procuring 50 C-5's, which I highly recommend, and then discarding them a few years later. I think we will use those 50 C-5's for the totality of their service life, roughly 30,000 flying hours which will take them well into the year 2010 or 2020 time period.

Senator STEVENS. Let me put it this way then. It is an incomplete solution in the sense that this budget does not meet the projected RDF requirement under the study, the CMMS study, does it?

General ALLEN. No, it does not. It still leaves a significant shortfall in airlift capability.

Senator STEVENS. Then why, assuming that it is an incomplete or partial solution, why did you not opt for the solution of acquiring the existing, marketplace wide bodies that are there, the DC-10's and the 747's that keep on course on the C-17?

General ALLEN. The decision to buy 50 C-5B's was made because of the urgency of satisfying the outsize requirement and there has been a lot of discussion of outsize this morning. I can assure you, Senator, that that has not been overstated. That requirement is a very real requirement and we are going to be in trouble if we have a contingency with the present amount of outsize capability that we have.

Senator **STEVENS**. Well, aren't we going to be in trouble if we don't have something to augment this airlift in the near future? Those 747's and DC-10's are on the market and are there now. You could have them within a year.

General **BURKE**. Those aircraft are already available to us though, sir. In an emergency General Allen can obtain those airplanes. So that would not add to our capability.

Senator **STEVENS**. Well, they are not going to be there if they are sold.

General **ALLEN**. I would say, if the point comes that they begin to be sold out of this country or melted down for scrap, then we ought to look very closely at it, but I don't see that we are at that point.

Senator **STEVENS**. Well, let's look at this, the interim solution here as far as your own cargo that you are going to carry yourself, not CRAF. As you project this, then CRAF becomes less and less important. I want to go back to that chart again and the impact of that.

A 747 carries more cargo further and faster than a C-5B, doesn't it?

General **ALLEN**. Yes, sir, it is an excellent commercial plane.

Senator **STEVENS**. It is the outsize problem that we are dealing with primarily in terms of the C-5B, right?

General **ALLEN**. That and those military features that let it operate flexibly and responsively to places that we haven't necessarily preplanned for.

Senator **STEVENS**. My friend from Missouri has some questions about the C-5. The difference in that chart basically is that between now and 1990 is the C-5 rewinging, right? You are only getting about 25 percent of the capacity out of the existing C-5's, aren't you?

General **ALLEN**. As a matter of fact, the major difference in capability between now and that time period is the availability of the spare parts which allows us to increase the utilization rate. We have, in the present C-5's at Dover Air Force Base and Travis Air Force Base, preserved enough of the anticipated life of that wing, of the old wing, of the weak wing, to take care of a major contingency requiring the use of the airplane.

RESTRICTION OF CABIN LOAD IN C-5

Senator **STEVENS**. We were told that currently you are restricting the cabin load in the C-5A to 25 percent of capacity.

General **ALLEN**. That is the manner in which we are preserving the life of the wing during peacetime so that if we have a contingency we can go ahead and fill it up to 100 percent of capacity without the wing falling off.

Senator **STEVENS**. All right. I understand that.

The figures on here restrict it to the 25-percent level or maximum load on these charts?

General **ALLEN**. The maximum load.

Senator **Stevens**. Well, wouldn't the 747, if we are looking for an interim option on DC-10's, if we are looking for an interim option combined with a C-17 and going into it sooner, isn't that a less expensive option than the option of the C-5B and then going into the C-17 later?

General **Allen**. Well, it would be a question of how much sooner and how you evaluate the risk associated with the 3 or 4 years difference in availability times, which General Burke was talking about.

General **Burke**. If you believe that the task is to deliver those military forces properly equipped when we want them, we would not conclude that the 747 is less expensive than the C-5. We would conclude that it is more expensive.

Senator **Stevens**. How is that? I am talking about the ones that are out there that are about ready to be lost.

General **Burke**. Well, it is hard to calculate that because we in effect have access to them now. So they are not going to add to that total. If we take them from the CRAF line and put them up to some other line, there is not going to be any net change. If they start to get sold for scrap or if they start to get sold out of the country, that is another proposition.

Senator **Stevens**. What percentage of the airlines wide bodies are committed to CRAF now?

General **Allen**. Essentially, all of the cargo ones. All but four of the cargo capable wide bodies in the civilian airlines are committed to the CRAF. There are four DC-10's that are not. Those are the short-range DC-10's. The rest of them are.

Senator **Stevens**. Is it your testimony that you are negotiating with people to find some way for some sort of interim lease to keep them in the civil airline ownership in this interim period?

CONVERTIBILITY OF PASSENGER PLANES TO CARGO

General **Allen**. No. What we are discussing there, Mr. Chairman, are better ways, better formulas to provide economically feasible, from the Government's point of view, incentives to the airlines to provide convertibility between their passenger carrying airplanes and cargo airplanes. We have more than ample passenger carrying capacity in the CRAF.

The people who go to war overseas in a future war are going to go by means of the CRAF. They are going to go on a commercial airliner. We would like the capability, and so would the airlines, to convert those, to modify those passenger airplanes in such a way that they can be converted quickly to cargo capable airplanes. That means strengthening floors, putting in larger doors and things of that nature.

Now to do that first you have to take the airplane out of service for a period of time while it is being modified, then you have to modify it and then the airlines are going to be carrying around that additional weight for the rest of the airplane's life.

So you have to reimburse the airline for the additional weight that he is going to be carrying and the additional fuel costs. Then, finally, it will affect the resale value of the airplane because some future owner is going to have to carry the additional weight and it supposedly will decrease the future value when they are ready to sell it. So you have to reimburse the airlines for all of those costs in order to make this passenger airplane convertible to cargo.

The way that we went about it last year with an RFP, which required firm, fixed price proposals from the airlines, came in too expensive. The airlines looking out in the future were evaluating the economic risk to them and they provided bids back to the Government which would cover the potential economic risk, and it was judged that those cost were just too high.

Senator STEVENS. Well, what if you went to new 747's instead of those that are on the market, wouldn't you get a gain to your total airlift capability quicker by just buying new 747's as an interim solution than you would by going to the C-5B? There is going to be a period of time for development of that.

General ALLEN. Well, what we would like to do, of course, is to find the incentive for the airlines to maintain within their structure the cargo carrying capacity of their 747's, and that way the airlines are absorbing the operations and maintenance cost of the airplanes in peacetime. We contract for them on a periodic basis and we use them to supplement our organic capability in peacetime and to exercise the CRAF capabilities of the civil reserve air fleet, but, by and large, there is a 5, 6, or 7 to 1 cost advantage to the Government to have these airplanes owned by the airlines and available in times of crisis as compared with owning the airplanes by the Government.

Senator STEVENS. Well, have your explored the concept of getting the 141's into the CRAF fleet and letting them become the new generation replacing some of the 130's that are out there in the CRAF fleet?

General ALLEN. Well, you know sir, ownership of an airplane by the air carriers is a function of their commercial markets.

Senator STEVENS. That wasn't the case when we had to battle to get some of the 130's out of the military ownership into the civilian fleet at the beginning. Now they can buy them new I understand.

DECREASE IN CRAF CAPABILITY

My problem, again, is looking at that blend of that chart, General. When we end up you are going to have such a small portion of reserve capability that we are going to be maintaining year-around three-quarters of this capability. We are going to be paying for it standing on field. We are going to have to fly it just to keep it so it can be flying. Whereas right now we are relying to a great extent upon a reserve fleet that is being utilized by the civilian sector that we can pick up in time of emergency.

When you get to the final end of this program on the CMMS your CRAF capability is going to be down 15 or 20 percent at the maximum and we are going to be paying for operation and maintenance of 80 percent as opposed to paying now for operation and maintenance of 55 or 60 percent. Am I wrong?

General ALLEN. Senator, I think in some of our dialog we are getting confused between the civil reserve air fleet, which is owned by the airlines and operated commercially, and the Reserve and Guard forces which are also part of the military airlift capability.

Senator STEVENS. Well, which is on that graph?

General ALLEN. That is the civil reserve air fleet, purely the civil reserve air fleet.

Senator STEVENS. That is what I am talking about.

General ALLEN. But when you are talking about C–130's for the Reserves, we have C–130's in the National Guard and in the Air Force Reserve. As a matter of fact, we have more of them in the Guard and Reserve than we have in the Active forces.

Senator STEVENS. Well, I understand the difference. I am just saying part of our problem as we go into this expanded Air Force and the procurement, and I think we are spending some $30-odd billion in the next 4 years for acquiring new equipment for the Air Force. Not to the extent that that is increasing the percentage of Government-owned and operated aircraft that are going to be sitting out there in the line all the time. It is going to change our operation and maintenance budget, our manning costs and everything else.

General ALLEN. Certainly.

Senator STEVENS. Whereas right now we have a different mix because we rely fairly heavily on CRAF right now and you are not going to be doing that when you get up to 1990 or around 1986.

General ALLEN. We are going to continue to rely on CRAF to the extent we do today, and, if possible, as I explained earlier, we are trying to find ways of increasing the CRAF capability.

You know, one of the real problems that we have, and this is——

Senator STEVENS. Pardon me, General, you can't do that as long as your stated requirements are an oversize and outsize capability that CRAF is not going into.

General ALLEN. Well, that is correct, and I don't generate those requirements. The U.S. Army has self-propelled 8-inch howitzers, and they have self-propelled 155-millimeter guns, all of which are outsize and all of which have to accompany them into battle.

Senator MATTINGLY. Can I ask one question?

Senator STEVENS. Certainly.

Senator MATTINGLY. Let me ask each of you just a yes or no question, and this is a question that has been asked not at this hearing but before.

NUMBER OF EXISTING C–5'S ADEQUATE

Do any of you believe that we could move sufficient outsize equipment in the 77 C–5's that we have available to the military today?

General ALLEN. No; we cannot.

General BURKE. No, sir.

General VOGT. No, sir.

General PARKER. No, sir.

Senator MATTINGLY. Thank you.

Senator STEVENS. How much of it can you move?

General ALLEN. It is totally scenario-dependent.

Senator STEVENS. Well, as the question implied, I know we don't have enough airlift capability for all the outsized equipment. So your answer has to be no to his question. But how much of it can you move with your existing outsize equipment?

General **Allen**. It is a question of what scenario you are looking at, Mr. Chairman, and what the requirement is. In any of the scenarios in this CMMS there is a deficiency in outsize capability. As a result of that observation, the study concluded that of the 25 million ton-miles per day additive capability that was needed, at least 10 million ton-miles per day of that should be provided in outsize capability.

General **Burke**. I showed a chart earlier, Mr. Chairman, that looked at scenario No. 1 from the CMMS which showed that at the end of 15 days we were deficient in the delivery of 30,000 tons of cargo with the today's 77 C-5's. Adding the additional 50 C-5's would reduce that to about 15,000 tons.

Senator **Stevens**. A couple more questions, General, about the KC-10.

CONVERSION OF DC-10'S

You want the KC-10 procurement. Why haven't you considered picking up at least those DC-10's out there and converting them? Now there is a different kind of problem and I am informed it would save 40 percent on acquisition costs if you would take the surplus DC-10's and put them into tanker cargo capacity. They are not in tanker capacity in CRAF. You are defining a cargo tanker objective in your budget and you could pick up those existing DC-10's instead of buying new ones. Now why don't you convert the ones that are out there on the market now?

General **Burke**. We would be very interested in the long-range version of the DC-10 if they become available surplus. The DC-10's come in 10 and 30 version, and the 10 has got very short range and would not be suitable for our needs.

Senator **Stevens**. Well, aren't most of those that are out there the 10/30's?

General **Burke**. Most of them that are surplus are the 10's which are short range. There may be some 30's that come on the market, and I am particularly interested in the Laker Airlines which are 30's and I think the U.S. Government may have some claim on them through the Export-Import Bank and we are trying to understand that.

SUBMITTED QUESTIONS

Senator **Stevens**. Well, I have a series of questions to submit to you.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

ADDITIONAL COMMITTEE QUESTIONS

RESTART C-5 PRODUCTION IN FY 82

QUESTION: There is a $97 million reprogramming and a $99.1 million supplemental request to restart C-5 production in fiscal year 1982. Why can't a decision of that magnitude await the regular 1983 budget decision?

ANSWER: An urgent need for additional airlift exists now. The Congress cited the near-term nature of our airlift deficiencies when it denied the fiscal year 1982 Air Force C-X RDT&E request and instead appropriated funds for procurement of wide-bodied cargo airlift aircraft. The C-5 is such an aircraft, and these fiscal year 1982 funds are part of the Air Force reprogramming request. The Air Force requested additional fiscal year 1982 funds in order to protect the delivery schedule offered in Lockheed's new production C-5 proposal.

ACQUISITION COMMITMENT ON THE C-5B PRIOR TO CONGRESSIONAL ACTION

QUESTION: Some members of Congress have been concerned that the Air Force might attempt to contract for preliminary production of the C-5B with funds already available in the current fiscal year. Does the Air Force have any plans at all to make any kind of acquisition commitment on the C-5B prior to Congressional action on the reprogramming and supplemental request?

ANSWER: At present there are no funds available for use on the C-5B.

The Air Force does not intend to award a C-5B contract until there is clear evidence of Congressional intent to fund the program. Such intent could be indicated by approval of the FY 82 reprogramming request (which contains the FY 82 funds appropriated for wide-bodied cargo airlift aircraft) or the FY 82 supplemental appropriation request.

FY 82 SPENDING FOR C-5B'S

QUESTION: Your total request for the current fiscal year approaches $200 million for the C-5B. Please tell us how you would spend that kind of funding in the time remaining in FY 1982.

ANSWER: The funds requested for FY 82 will be obligated for long lead items for the initial C-5B buys and for refurbishment of tooling at both prime and subcontractor facilities. These funds are necessary to protect the efficient delivery schedule and production rate offered in Lockheed's proposal.

SUPPLEMENTAL APPROPRIATION REQUEST FOR KC-10S

QUESTION. Let's shift a moment to the KC-10 portion of the Air Force's airlift program. First, why did you consider it necessary to submit a supplemental appropriation request for two more KC-10s in the current fiscal year? Since Congress has already funded KC-10 procurement in FY 1982, what is the urgency of two more of these aircraft?

ANSWER. Although the initial supplemental request contained $115.0 million and $5.0 million for two additional KC-10s and intial spares respectively, this request was modified by the multiyear procurement proposal submitted to the Congress on 21 April 1982. The $120.0 million in the supplemental request is urgently needed to initiate the multiyear procurement of 44 KC-10s and is solely advance buy funding. Without the $120.0 million, the proposed multiyear program cannot be executed, and the savings of $213 million over the FY 1983 budget profile will be negated.

NEED FOR 44 MORE KC-10s

QUESTION: How did you reach the determination that a total of 44 more KC-10s would be needed for your airlift enhancement program?

ANSWER: Sixty KC-10s and other planned mobility forces' improvements will enhance our ability to project an RDJTF-sized force to regions such as the Persian Gulf. These improvements will align our capabilities with current operational direction.

The Air Force has a validated requirement for 60 KC-10s, in conjunction with the KC-135R program, to meet our refueling needs. The KC-10s were bought at a favorable price under the existing contract, which gives substantial discounts for up to 60 aircraft. The procurement of 44 additional KC-10s takes advantage of that option and adds significant capability to the force projection mission.

The KC-10 is a unique aircraft in that it can perform any one of three mobility missions. It can perform the tanker mission and airlift mission by augmenting the airlift forces of the Military Airlift Command or in a dual tanker/cargo role. The KC-10s inherent versatility will provide the Air Force with the unique opportunity to select any one of several specific mission profiles as wartime requirements arise.

KC-10 MULTIYEAR PROCUREMENT

QUESTION. There is nothing in the President's Budget, but Deputy Secretary Frank Carlucci has written the Committee and proposed writing in authority for KC-10 multiyear procurement. Isn't that a somewhat unusual way of amending the President's Budget?

ANSWER. Although the Deputy Secretary of Defense letter was somewhat unusual as a means of amending the budget request, we felt that this was the most appropriate method in view of the circumstances surrounding the KC-10 procurement. First, numerous inquiries had been made by Armed Services Committee members regarding the feasibility of multiyear procurement, and a quick response was required. Second, the letter does not amend the budget in the usual sense of requesting additional funds. Rather, it merely realigns the breakout of the funds requested in the FY 1982 Supplemental and the FY 1983 Budget within the yearly TOA request levels. In fact, the letter requests $6.1 million less in FY 1983.

OMB CLEARANCE FOR MULTIYEAR PROPOSAL FOR KC-10 PROCUREMENT

QUESTION. Has the multiyear proposal for KC-10 procurement been cleared through the Office of Management and Budget? Is there general agreement within the Administration that this new approach is the best way to go?

ANSWER. The Office of Management and Budget is clearly in favor of the multiyear procurement approach on the KC-10. This approach is recognized as the best way to go in view of the large savings realized over an annually funded profile and the economic impact that would result for the contractor if it were not approved.

QUESTION: Multiyear procurement would save money in the long term, but the immediate impact is to increase outlays sharply in 1983 and 1984. Under the current budget climate, an increase in outlays is the last thing we're looking for.

Is this outlay increase acceptable to the Administration? If so, can you offer a program change to produce outlay savings to offset this increase?

ANSWER: While multiyear procurement will produce an outlay increase in FY 1983 and FY 1984 over the levels associated with annual contracts, the increase in outlays should not be characterized as sharp. The Department of Defense initially requested $546 million in additional obligational authority in FY 1983 over the levels associated with annual procurement contracts. That budget request was reduced by $147 million with the approval of the Blackhawk program for multiyear contracting in FY 1983. Since the resulting multiyear budget request of $399 million represents less than one percent of FY 1983 obligational authority or projected outlays, I would not characterize the increase for multiyear contracting as sharp. Considering the size of this increase and the fact that it should return net savings to the Department in excess of $500 million, I do not consider it to be acceptable.

Since the outlays associated with multiyear procurements were taken into account when the FY 1983 budget was prepared, it is not necessary to make a second program adjustment to accommodate the increase.

R&D AND PROCUREMENT FUNDING TO DEVELOP AND PROCURE C-17

QUESTION: Please supply for the record the kind of R&D and procurement funding that would be necessary to develop and produce the C-17 in order to meet the IOC you are talking about. Give it to us in annual increments and by appropriation account.

ANSWER: The following funding profile would produce an IOC for C-17 in FY 1990.

(Then-Year Dollars in Millions)

	FY 84	FY 85	FY 86	FY 87	FY 88	FY 89	FY 90
Buys	--	--	--	2	6	12	24
Del	--	--	--	--	1	4	7
R&D	100	310	480	800	700	600	400
Proc	--	--	215	1780	2060	2790	4010
TOA	100	310	695	2580	2760	3390	4410

The FY 83 President's Budget does not contain any funds for C-17 development. If a minimum of $100M in FY 83 funds were made available, then an FY 89 IOC could reasonably be achieved with the following profile.

	FY 83	FY 84	FY 85	FY 86	FY 87	FY 88	FY 89	FY 90
Buy	--	--	--	2	6	12	24	36
Del	--	--	--	--	1	4	7	20
R&D	100	360	650	900	800	600	450	200
Proc	--	--	200	1660	1926	2610	3745	4500
TOA	100	360	850	2560	2726	3210	4195	4700

TOTAL COST OF ENHANCED AIRLIFT...THE CURRENT C-5 AND KC-10 OPTIONS

QUESTION. Also please supply for the record the total cost of enhanced airlift in the decade if we were to pursue the current C-5 and KC-10 options the Air Force proposes together with a C-17 addition. Also supply cost estimates on commercial aircraft alternatives - 747s, DC-1030s, new and used, etc.

ANSWER. The total acquisition cost of the C-5B and KC-10 programs is as follows. Since there is no approved program for C-17 production, we have no estimate for that program.

50 C-5B	-	$6.4B
44 KC-10	-	$2.6B
TOTAL	-	$9.0B

Boeing has proposed that 48 B747s could replace the 50 C-5Bs to be added to the USAF organic airlift force under the DOD airlift program. The Air Force does not agree. Our calaulations show that even an equal cost B747 force (58 B747s vice 50 C-5Bs) is less effective by as much as 25 percent in meeting the military requirement.

C-5B CAPABILITIES TO LAND ON AUSTERE AIRFIELDS

QUESTION: One reason the Air Force preferred the C-X over the C-5 was the requirement to land on austere airfields of 3,000 feet in length. Just what capabilities does the C-5B have to land on austere airfields?

ANSWER: The requirement of the C-X design was based on operation through austere airfields as small as 3,000 feet. The C-5 has the capability to land on airfields with a minimum runway length of 5000 feet.

EVALUATION OF THE C-5'S AUSTERE FIELD CAPABILITY

QUESTION: What tests have the Air Force conducted to evaluate the C-5's austere field capability? What were the results?

ANSWER: During the C-5 Operational Utility Evaluation (OUE), a survey was performed of representative forward area airfields in West Germany. The survey was conducted to determine what increase in the capability to support C-5A operations would result from implementing OUE results. All of the airfields surveyed have at least one unpaved area large and flat enough to support one or more C-5s. Surface preparation required to make the areas usable varied from no preparation to extensive filling and compaction. Therefore, an accurate determination of sufficient soil strength to support C-5A operations off pavement can only be made by on site evaluation at the actual time of the operation.

C-5 TURN AROUND

QUESTION: The C-5 cannot turn around within a 90 foot wide runway. Would this pose any significant problems in Persian Gulf airfields where the sandy environment is a consideration?

ANSWER: The operational utility evaluation demonstrated that the C-5 can operate under certain conditions in and on a sandy, off-runway environment. However, those conditions, such as soil texture, moisture content, obstacles, and terrain undulations cannot be controlled, so problems could arise depending on individual time- and location-dependent conditions. Operations on paved surfaces in this environment would not pose any problems.

LOAD PER WHEEL C-5 VS CX

QUESTION: Did the C-5 have a lower load per wheel than the CX design? Would it do less damage to soft runways than the CX?

ANSWER: The C-5 has a lower load per wheel than the CX. However, per wheel loading is not the only determinant of runway damage predictions. On a given runway, the differences in C-5 and CX damage rates are not significant when evaluated in terms of overall effect on the ability of that runway to sustain contingency operations.

WEATHER TESTS FOR C-5

QUESTION: In what kinds of weather has the C-5 been tested? Has it been tested at soft, sandy runways at Edwards AFB? What were the results?

ANSWER: During the C-5 Operational Utility Evaluation (OUE), tests were conducted on approximately 12-14 inches of snow and after simulated rainfall conditions on unprepared surfaces. On snow, taxi and loading operations were successfully demonstrated but towing was not possible due to loss of traction of the tow vehicles. On wet soil, taxi and loading operations were successful until an increase in simulated rainfall resulted in the aircraft producing 10-12 inch ruts. At this point, the test was terminated since engine thrust was approaching the limit. Towing on wet surfaces was unsuccessful. Testing on sand at Eglin AFB during the OUE demonstrated successful taxi and loading but unsuccessful towing. Development test and evaluation during the original C-5 testing was conducted on the dry lakebed at Edwards but was terminated when engines were damaged by dirt ingestion. This was probably due to engine reverse thrust limit misrigging and the fact procedures not used in normal operations were used.

COST OF C-5A WING MODIFICATION

QUESTION: What is the total cost of the C-5A wing modification program by appropriation account?

ANSWER: The total cost of the C-5A wing modification program by appropriation account is:

	($ in Millions)
RDT&E	$170.6
Aircraft Procurement	867.2
Operation and Maintenance	450.1
	$1,487.9

COST PER FLYING HOUR ON C-5A RESTRICTED CABIN LOAD

QUESTION: Currently the Air Force is restricting the cabin load on the C-5A to 25 percent of capacity. What is the cost per flying hour with and without this restriction?

ANSWER: The C-5 is presently restricted to a 50,000 pound payload in routine cargo operations. This is approximately 25% of the post-wing modification maximum payload capacity of 197,500 pounds. The pre-wing modification maximum payload capacity is 144,000 pounds. The only readily quantifiable cost differential between flying with the restriction versus unrestricted operations is in the fuel burn-off rate. In a maximum payload unrestricted operation, the fuel burn-off rate per hour is 27,350 pounds for post wing mod and 24,560 pounds for pre-wing mod. This compares to 19,990 pounds per hour on a similar mission with the 50,000 pound payload restriction. The average operating cost per hour, including both fixed and variable elements, at the FY 1982 daily use rate is $9,568. Allowing for the burn-off rate differential would increase the cost per hour to $10,279 for pre-wing mod unrestricted flying and to $10,714 for post-wing mod operations given that the daily use rate remains static. Additional wear and tear on tires, landing gear, struts, and brakes during heavy weight operations cannot be readily quantified. However, these costs tend to be offset by reduced inspection requirements in the post-wing mod period.

C-5 WING MODS TO SOLVE

QUESTION: Is the Air Force confident the C-5 wing modification is solving all the operating and durability problems?

ANSWER: The two measures of success in the wing modification program are the fatigue test article and the preproduction modified aircraft. The exceptional structural strength of the fatigue article demonstrates the durability of the design in a broad spectrum of mission types. The flight test article continues to perform very well. This dual success provides us with a high degree of confidence that the C-5 wing durability and operating problems will be solved by the modification program.

NEED FOR R&D FUNDS FOR C-5A WING MODIFICATION

QUESTION. Why do you need $6.8 million in the FY 83 budget for R&D related to the C-5A wing modification program?

ANSWER. These funds are principally to complete damage tolerance/crack propagation testing on the fatigue article wing. Upon completion of this testing, a residual strength test and teardown inspection will be performed and a final report prepared.

START OF THE C-5 WING TESTING PROGRAM

QUESTION: When did this testing program start, and when do you expect it to be completed? What's the total cost?

ANSWER: The test phase of the C-5 Wing Modification Program started with the commencement of fatigue testing on one test article in August 1979. That fatigue article has completed nearly 90,000 cyclic test hours with no significant problems. Damage tolerance/crack propagation testing is in progress and should be completed in FY 83. At that point, a residual strength/teardown inspection will be accomplished on the fatigue article and the final test report prepared. Closeout of contract activities is expected in FY 84. As of 15 May 82, we expect the total cost of the Research, Development, Test and Evaluation program, in then year dollars, to be $170.6 million.

ACHIEVEMENTS THROUGH THE COMPONENT TEST PROGRAM

QUESTION: What has been achieved through the component test program?

ANSWER: The component test program of C-5 wing design elements validated structural strengths and manufacturing techniques prior to manufacture and fatigue/flight testing of the wing as a complete assembly.

RESULTS OF THE FATIGUE TESTS FOR C-5

QUESTION: What have been the results of the fatigue tests performed thus far?

ANSWER: The fatigue test article completed 60,000 cyclic test hours with no significant structural problems. Following this test 60 flaws were intentionally cut into critical areas of one wing to study the rates of growth and effect of possible flaws. After 15,000 additional hours of testing, these flaws had grown minimally, so 10 additional flaws were introduced. Fifteen thousand more hours have been applied, and we are now completing the 90,000 hour inspection. No significant structural problems have occurred on either the left or right wing, even after 90,000 hours of testing, one third of which included induced flaws. Fifteen thousand additional test hours are scheduled, for a total of 105,000 cyclic test hours. All of these additional hours will simulate heavyweight wartime missions.

NO ADDITIONAL R&D EXPENDITURES REQUIRED FOR C-5A WING TESTING PROGRAM

QUESTION: Can you assure the subcommittee that no additional R&D expenditures will be required for the C-5A wing testing program beyond those projected at the present time?

ANSWER: Yes.

MODIFICATIONS TO TF-39-1C

QUESTION: The C-5A uses the TF39 high-by-pass ratio turbofan engine. The C-5B will use the TF39-1C, an improved version of the TF39 engine. What modifications will be made to the TF39-1C to improve durability and reduce maintenance costs?

ANSWER: No improvements are programmed for the TF39-1C engines that will be used on the C-5B. The TF39-1C engine currently in use is a major improvement over previous TF39 models. There are 34 hardware changes in the TF39-1C package primarily designed for increased durability and reliability.

Typical modifications include manufacturing the fan stator vanes using a forging process rather than a fabrication method. Fan rotor blades have a different hardcoat plus a stress reducing recontoured relief radius. New and more durable alloys are used for the combustion liners, turbine blades, and turbine midframes.

TESTING OF MODIFICATION ON CF-6

QUESTION: Have these modifications been tested on the CF-6, the commercial version of the TF-39?

ANSWER: Numerous modifications are being incorporated into the TF39 engines as a direct result of extensive commercial experience on the CF-6 engine. The CF6-6 commercial engine, which entered service in 1971, was derived from the TF39 engine. The high utilization rates on the CF6-6 in commercial service, together with the high degree of commonality between the CF6 and the TF39, have provided many benefits. Problems that surface on the CF6 engines with their higher operating hours permit early identification and orderly planning of modifications for the TF39 fleet.

CONFIDENT THAT C-5B WILL NOT BE RE-ENGINED

QUESTION: Are you confident that the C-5B will not have to be re-engined?

ANSWER: We are confident that the C-5B will not require re-engining. The TF39 engine was specifically designed to meet the requirements of the C-5. Aircraft and engine systems' compatibility was carefully tailored to achieve optimum performance of the C-5/TF39 combination.

C-5B ENGINE CONTRACT

QUESTION: Was the C-5B engine contract competed? Why not?

ANSWER: No. There is no separate C-5B engine contract. The Lockheed C-5B fixed price offer includes, as contractor furnished equipment, General Electric TF39-1C engines. The TF39-1A engines on the C-5A force are currently being upgraded to the TF39-1C configuration. The Air Force feels that it is essential that the same engine be used on both the C-5A and the C-5B to minimize logistics support costs.

C-5 AND C-17 AIRLIFT CAPABILITIES

QUESTION: What are the C-5 and C-17 airlift capabilities for the transport of outsize cargo, or combat equipment? Please compare them for:

- The M-1 and M-60 tanks.
- AH-64 or AH-1 helicopters.
- Bradley Fighting Vehicles.
- DIVAD guns.
- 8" Self Propelled Howitzers.
- 155mm Self Propelled Howitzers.
- Lance Missile Loader-Transporters?

ANSWER: Both the C-5 and C-17 can airlift a full complement of outsize cargo and combat equipment, including all items listed. The large cargo compartment and maximum allowable cabin load of the C-5 will permit it to carry more items or cargo than the C-17 between major airfields.

C-5 DEVELOPMENT AND OPERATING RECORD

QUESTION: Why does the C-5 have such a miserable development and operating record?

ANSWER: The development record of the C-5 was the subject of a recent General Accounting Office study. The study concludes that changes made to the military procurement process would prevent recurrence of the problems associated with the original C-5 procurement. The operating record of the C-5, though tarnished by limited spares and operational limits imposed by wing problems, is good. In every exercise or contingency called upon to fly, the C-5s performed their mission well.

SUMMARIZE THE C-5'S MAJOR PROBLEMS

QUESTION: Please summarize the C-5's major problems and tell us how they've been corrected and at what cost to whom.

ANSWER: The C-5A has served the Air Force very well and has significantly enhanced our force projection capability. Generalized wing cracking is the biggest problem with the C-5A. The repair consists of replacing the center, inner, and outer wing boxes with redesigned and strengthened components. The $1.5 billion cost will be paid by the Air Force.

TOTAL COST TO DATE OF THE C-5

QUESTION: What has been the total cost to date of the C-5 in 1983 dollars?

ANSWER: The total acquisition cost for the C-5A was $11.1 billion in FY 1983 dollars. This total includes RDT&E, procurement of 81 aircraft, and military construction. In addition, the cost through FY 1982 for the C-5 wing modification program (including RDT&E, procurement, and kit installation costs) will be approximately $730 million in FY 1983 dollars.

WING DESIGN DEFICIENCIES IN ORIGINAL C-5A AIRCRAFT

QUESTION: What wing design deficiencies existed in the original C-5A aircraft and when did the Air Force learn of them and decide the wing had to be modified?

ANSWER: The average stresses used in design of the primary structure of the C-5A wing exceeded standard design practices, leaving little or no allowance for uncertainty and/or material/manufacturing variances. These deficiencies were not confirmed by full scale fatigue and static test results until September 1971. In March 1973, based upon the findings and recommendations of an independent review team, the Secretary of the Air Force decided to modify the C-5A wing.

C-5A DEFICIENCIES

QUESTION: Did the Air Force know the C-5A was deficient upon starting the production program?

ANSWER: Under the Total Package Procurement Concept, there was no separate production decision or production contract. By the time the wing deficiencies were confirmed in September 1971, 46 aircraft had been delivered and parts had been fabricated for the 81st aircraft.

ALTERNATIVES TO ACCEPT AN AIRCRAFT WITH A DEFICIENT WING

QUESTION: What alternatives existed to continuing to accept with a deficient wing? Why was the decision made to continue production instead?

ANSWER: The following alternatives existed other than continuing to accept aircraft with a deficient wing:

a. Refuse to accept any additional aircraft; or

b. Stop production.

The first alternative would also have had the effect of stopping production because the contract had been converted to a cost-plus-fixed-loss contract.

The decision was made to continue production because:

a. Under terms of the revised contract, the Government would bear the cost of any required wing fix;

b. The extent of the wing problem and the necessary fixes had not been determined; and

c. Outsized airlift capability was urgently needed.

Stopping the production line would have resulted in additional cost for storage, maintenance, and re-start of the line.

DECISION NOT TO COMPETE THE WING REDESIGN

QUESTION: Why was the decision made not to compete the wing redesign and modification program?

ANSWER: The following accurate discussion of the reason for sole source award of the C-5A wing modification contract is extracted from page iv of GAO report PLRD-82-38, March 22, 1982:

"Given the results of an Air Force competition feasibility study and potential competitors, GAO believes that the Air Force's sole-source award of the H-mod design and development contract to Lockheed was appropriate. At the time of the decision to proceed, the Air Force believed the H-mod was urgently needed. No other potential source was interested in competing for the work because only Lockheed had the expertise and facilities to perform the H-mod development work at lower costs and in the time schedule desired."

WARRANTY OF C-5B SUPPLIES, REPAIR AND WORKMANSHIP

QUESTION: What agreement has the Air Force made with Lockheed concerning the warranty of C-5B supplies, repair and workmanship?

ANSWER: No warranty agreements have been made with Lockheed. The Air Force has not yet been authorized to proceed with contract negotiations. Warranty provisions will be a subject for production contract negotiations. The basis for the negotiations will be the Lockheed unsolicited proposal as of 26 October 1981. That proposal contained the following warranty elements:

1st Year - Standard Defense Acquisition Regulation (DAR) material and workmanship provisions, which provide for correction of defective item or equitable adjustment at the Government's option. All end items, except engines and technical data, shall be free from defects in material and workmanship, and from defects in design for new design performed for the C-5B.

Commercial Warranty Period Beginning Beyond 1st Year -
Defective Design - Additional 6 months (new design only)
Material and Workmanship - Additional 2 years, essentially the same as the 1st year.

ACHIEVE LOWEST POSSIBLE MAINTENANCE MAN-HOUR PER FLIGHT HOUR

QUESTION: What incentives are included in the contract to guarantee Lockheed will achieve the lowest possible maintenance man-hour per flight hour?

ANSWER: Lockheed has offered to pay the Air Force $25M if the C-5B is unable to meet a 40 maintenance manhour per flight hour guarantee during an operational and support test.

NEW AIRCRAFT TO BE AVAILABLE FOR CRAF

QUESTION: We understand the airlines are not purchasing new aircraft to be available for CRAF. What can be done to counter this problem under existing legislative authority?

ANSWER: The airlines have never "purchased aircraft for the CRAF." Their purchases have always been made for their commercial market with the CRAF application only a by-product of those aircraft. However, up until the 1980's generation of aircraft which is a product of both the current fuel prices and deregulation, the aircraft purchased by the airlines were very compatible with military requirements. The 1980's generation of aircraft has as their hallmark, market efficiency, an aspect important to the military operation but shadowed by the requirement to move large DOD vehicles. With current legislative authority, the best we can do is to adapt the wide-body aircraft already available in the airlines through a program such as CRAF Enhancement, and make the most of the 1980's generation aircraft with a program much like CRAF Enhancement. This places us in a make-do mode. The only real new alternative for the future lies in a joint military/civil carrier aircraft development program involving new legislation. Such a program is presently a study topic for the airlift committee of the NDTA.

POTENTIAL PARTICIPANTS IN THE CRAF PROGRAM

QUESTION: Would a retrofit program be cost effective? How many potential participants have been identified, and how much could they contribute to our airlift capability? At what cost?

ANSWER: The retrofit of commercial wide-body passenger aircraft into cargo-convertible aircraft, the program we call CRAF Enhancement, is a cost-effective way of providing for additional emergency oversize cargo capability. The cost of a CRAF Enhancement program is estimated to be five to eight times less than owning and operating those aircraft organically. There were six potential participants in the CRAF Enhancement program that expired on 8 January 1982. The final proposal involved 53 DC-10 aircraft that would have provided 6.5 million daily ton-miles of cargo movement. The cost figures which evolved from this last CRAF Enhancement request for proposal (RFP) and subsequent negotiations were, in FY 81 dollars: DC-10 modification, $19.3 million; B747 modification, $35.1 million. It must be understood that these numbers were valid only for the 22 April 1981 RFP and, therefore, can only be used as estimates now. The CRAF Enhancement legislation which was passed in December 1981 was not a consideration for the airlines when they proposed these numbers.

STUDIES ON AIRCRAFT ATTRITION

QUESTION: One intra-theater airlift issue not frequently addressed is that of aircraft attrition. Has the Air Force conducted studies on this issue? What were the results?

ANSWER: The Air Force has conducted studies of intertheater airlift aircraft attrition which indicate that most losses would occur during enemy attacks on theater airfields. Intratheater aircraft would have additional threat exposure during theater employment operations, but there have been no recent studies of intra-theater airlift attrition.

QUANTIFY INTRA-THEATER AIRLIFT REQUIREMENTS

QUESTION: Can we actually quantify our intra-theater airlift requirements if wartime scenarios are fluid and expected attrition rates may be variable?

ANSWER: Intra-theater airlift requirements are difficult to fully quantify because battlefield demand, aircraft attrition and other factors are highly variable. Estimations must be based upon scenario assumptions and historically based planning factors. On the other hand, we do know the minimum shortfall in Europe to be on the order of 100 C-130 equivalents. The true deficit maybe greater, but at least this number is required.

SEALIFT PREPOSITIONING OF EQUIPMENT SAFER MECHANISMS

QUESTION: Although airlift may provide faster deployment capabilities, aren't sealift and prepositioning of equipment inherently safer mechanisms to move combat units to a combat theater?

ANSWER: No. Sealift and prepositioning are not safer mechanisms to move combat units to a theater. The loss of one ship is a nearly irreplaceable loss of a major part of a division's equipment. Prepositioned stocks are large, lucrative, fixed targets that can be sabotaged and/or destroyed before or during the outbreak of hostilities. In addition, prepositioned equipment/supplies still require movement by some means (air, sea, ground) to the battle area. An aircraft lost, on the other hand, is only the loss of a relatively small increment of equipment or personnel. While airlift is vulnerable to disruption (like sealift and prepositioning) by military action against aircraft and airfields, the flexibility of airlift to rapidly change ports of debarkation or to use aerial delivery means, can avoid complete shutdown of an operation.

The effectiveness of our force projection capability is dependent on our ability to make available, in time, that amount of force necessary to satisfy our strategy. The sum of our mobility program must provide a mix of speed, sustainability, flexibility and effectiveness. Each program — airlift, sealift, and prepositioning -- has its advantages and disadvantages and each provides a unique and necessary piece of a balanced force projection capability. Each program complements the others to varying degrees based on the scenario and as such they are synergistic and interdependent.

CANCEL KC-135 REENGINING PROGRAM AND PURSUE KC-10 PROCUREMENT

QUESTION: Air Force disagrees with the CBO proposal to cancel the KC-135 Reengining program and pursue the KC-10 procurement only. What is the Air Force position on this proposal?

ANSWER: The Air Force has completed its initial assessment of the Congressional Budget Office (CBO) Aerial Tanker Force Modernization study. The CBO study examined three alternative tanker force options: (Option One) the Administration's program to modernize/reengine approximately 300 KC-135 tankers with CFM56 engines (KC-135R) and purchase an additional 44 KC-10s; (Option Two) a CBO force that terminates the CFM56 program, reengines 185

KC-135s with donor JT3D engines (KC-135E), and purchases 44 additional KC-10s; and (Option Three) a CBO force that limits tanker modernization to an additional 44 KC-10 procurement only.

Our analysis does not support many of the CBO conclusions. The CBO projected tanker demand is significantly understated. The study fails to account for the impact of not modernizing the KC-135A force. Cost-effectiveness conclusions are based primarily on near-term investment costs rather than total force investment and continuing ownership costs. The CBO study also employs the KC-10 in the strategic nuclear mission role without considering the impact on the airlift acquisition strategy. The KC-10 was purchased as a force projection asset, not to support directly the strategic nuclear mission. When acquisition and ownership costs, tanker demand and capability, tanker modernization, and mobility requirements are accounted for, Option One is the most cost-effective option.

Aerial Tanker Demand

Total tanker demand is a function of strategic nuclear and general purpose requirements. The CBO study has the current and projected tanker requirements significantly less than the actual requirements.

Congressional Budget Office estimates for tanker requirements to support strategic nuclear forces do not reflect the complexities of strategic nuclear planning. The CBO study fails to include a large number of important variables and is based on a most optimistic approach. Air Force estimates are based on 30 years of practical experience in determining refueling requirements. Those requirements far exceed the CBO projections.

The CBO general purpose tanker requirements are much lower than Air Force requirements. The study assumes a low demand to support NATO operations. Air Force studies have validated NATO tanker demand well in excess of 200 aircraft over the duration of the conflict. The CBO study also understates tanker demands to support a Rapid Deployment Force deployment because it assumes average demand of F-15 squadrons alone, rather than a mixed force and does not account for attrition fillers. In a Persian Gulf scenario, tanker requirements would be approximately twice the CBO requirements. The CBO study also fails to address the possibility of simultaneous conflict in separate theaters of operation.

Tanker Capability/Modernization

The CBO study states that Options One, Two, and Three provide excess tanker capability beyond 1987, 1989, and 1991, respectively. Based on Air Force projected tanker demand, none of these options provide excess capability and only Option One meets the Air Force moderate risk demand. Neither of the CBO options meets the Air Force moderate risk requirements and neither approaches the low risk requirements. Option One is the only tanker force that gives the Air Force the capability to tailor its tanker capability to support requirements in the 1990s and beyond.

Only Option One provides a comprehensive modernization program for the KC-135 fleet. The KC-10 provides substantial new capability quickly and the KC-135/CFM56 program solves critical engine problems of the present J57 engine, while also modernizing 34 major systems or subsystems.

Option Two with JT3D reengining is not a total KC-135 modernization program and fails to correct all the KC-135 deficiencies. Meeting the Air Force's moderate risk force would exceed the total worldwide inventory of the lower cost JT3D engined 707-100/720's. The Air Force would be forced to procure about 100 of the higher cost 707-200, 300, 400s to meet this option. There are also unanswered questions concerning the maintenance status of those engines.

Option Three only modernizes the force with KC-10s and eliminates any reengining effort. Without CFM56 reengining the Air Force would be forced to seek up to $1.2B to insure a completely reliable J57 engine. With that, the J57 would remain 1950 technology, a noisy, dirty and extremely fuel-inefficient engine. The operations and support cost of continuing to operate the KC-135A make Option Three the least cost-effective option, rather than the most cost-effective.

Tanker Force Cost-Effectiveness:

Tanker force cost-effectiveness is a combination of acquisition, operating costs, and tanker improvement factors. The CBO cost effectiveness conclusions were based primarily on acquisition costs rather than the total costs of acquiring and operating a total force over time. When a comprehensive life cycle approach is used, Option One is the most cost-effective approach, Option Two is second, and Option Three becomes the least cost-effective approach.

A detailed analysis of life cycle costs for the KC-135 is included for comparison. This further refines Air Force analyses provided to the House and Senate Appropriations and Armed Services Committees in December 1981. The CBO study differs in assuming a 43 percent improvement for the KC-135R versus 50 percent used by the Air Force. It also assumes improved fuel efficiency of 21 percent for the KC-135R versus 25 percent. Life cycle costs are sensitive to these changes. Air Force analysis indicates the KC-135R provides an improvement in capability that ranges from 40 to 200 percent, depending on the length of the refueling mission. The aggregate improvement of 50 percent used by the Air Force is conservative.

In summary, the Administration's program to reengine approximately 300 KC-135s through 1987 with CFM56 engines and purchase an additional 44 KC-10s is the most cost-effective option when total force costs are considered. It is the only program that will meet the moderate risk demand for air refueling in the 1990s. Finally, it is the only option which modernizes the KC-135.

20-YEAR TANKER LIFE CYCLE COSTS PER PAA
(MILLIONS OF FY 81 DOLLARS)
CONSTANT FUEL COSTS

COST CATEGORY	KC-135A	KC-135E	KC-135R
Acquisition	-	4.2-7.3	15.0
Modification	2.9	.8	.8
20-Year Operations & Support (except fuel)	21.0	18.5	18.7
20-Year Fuel	16.7	14.7	12.5
20-Year Life Cycle	40.6	38.2-41.3	47.0
20-Year Life Cycle Factored to KC-135A Equivalent	40.6	32.6-35.3	31.3

10 PERCENT ANNUAL FUEL COST GROWTH

COST CATEGORY	KC-135A	KC-135E	KC-135R
Acquisition	-	4.2-7.3	15.0
Modification	2.9	.8	.8
20-Year Operations & Support (except fuel)	21.0	18.5	18.7

20-Year Fuel	63.7	56.0	47.8
20-Year Life Cycle	87.6	79.5-82.6	82.3
20-Year Life Cycle Factored to KC-135A Equivalent	87.6	69.9-70.6	54.9
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Equivalence Ratio
In the aggregate, 1 KC-135R (CFM56) equals 1.5 KC-135As and 1 KC-135E (JT3D) equals 1.17 KC-135As.

Fuel Efficiency
Compared to the baseline KC-135A, the KC-135R is 25 percent more fuel efficient and the KC-135E is 12 percent more fuel efficient.

REENGINE THE KC-135s WITH JT3D ENGINES

QUESTION: General, what is your position on the proposal to reengine the KC-135s with JT3D engines until the CFM-56 engine is available in 1984?

ANSWER: The Air Force elected not to pursue JT3D reengining and to allocate funds available for tanker modernization to the CFM56 program. There is a significant difference in the two programs. The KC-135R/CFM56 program reengines with a new, state-of-the-art engine, replaces or updates 34 aircraft systems, resolves serious operational and environmental problems, and provides a 50% increase in overall capability. The JT3D program is primarily an engine substitution with a 1960 technology engine which resolves some operational and environmental problems and provides a 17% increase in capability.

Although acquisition costs are lower for the JT3D, 20 year life cycle costs favor the CFM56. Air Force analysis of cost and capability supports the decision to allocate available funding to the KC-135R/CFM56 modernization program.

The funds added by Congress in FY 82 for JT3D will be used to reengine Air National Guard KC-135 aircraft at those units with the most severe operational or environmental problems. Should Congress again elect to provide additional funding in FY 83 for JT3D reengining, it will also be used for Guard KC-135s. Any funds allocated for the JT3D should not come at the expense of the CFM56 program.

JT3D MORE FUEL EFFICIENT AND CHEAPER

QUESTION: Isn't it true that the JT3D is more fuel efficient and cheaper to maintain than the current J-57 engine?

ANSWER: Yes, the JT3D is approximately 12% more fuel efficient than the J-57. While we do not yet have enough experience with the JT3D reengined C-135 to precisely compare maintenance costs with the J-57, we estimate that the operations and support (O&S) cost for the KC-135/JT3D will be approximately $6,012 per flying hour, as compared to $6,656 for the KC-135/J-57. These O&S costs include fuel, depot support, personnel costs, spare parts, and system support and modification costs for a typical squadron with 15 aircraft flying 326 hours per aircraft per year. Approximately 50% of the $644 difference in cost is fuel savings and the other 50% is primarily depot maintenance and replenishment spares.

NUMBER OF AIRCRAFT TO BE MODIFIED WITH JT3D ENGINE

QUESTION: Given the favorable pricing of the JT3D engine, how many aircraft could be modified with this engine between now and the first delivery of the CFM-56 engine?

ANSWER: We have to make some assumptions about funding and when funding would be available, but we believe we could reengine a maximum of 112 aircraft, which includes the 28 currently funded in FY 1982, between now and Apr 84 when the first production CFM56 reengined aircraft will be modified. That is, assuming FY 1983 funds are available in sufficient time to make a contractual commitment to continue reengining without any breaks in production beyond Jan 83 when the last of the currently funded aircraft is scheduled for completion. It also assumes that FY 1984 funds will be available to continue without a break in production. The production rate for the 28 aircraft increment funded in FY 1982 is four per month. Modification of these aircraft will start in June and be complete in Jan 83. If we increased the production rate to six per month in Feb 83 and continued that rate through Mar 84, we could reengine another 84 aircraft in addition to the 28, for a total of 112 aircraft. A rate of six per month is the maximum rate Boeing could support. However, if we continue to reengine only ANG aircraft, four per month is the optimum rate because of ANG aircraft availability. Four per month would produce 56 additional reengined aircraft, for a total of 84 prior to the first delivery of CFM56 aircraft.

ENGINE MODIFICATION CONCURRENT WITH RESKINNING OF K-135S

QUESTION: Can installation of these engines be performed concurrent with the reskinning of the KC-135s?

ANSWER: Although it is possible to reengine and reskin concurrently, there are several disadvantages which make it undesirable to do so. Boeing is the prime contractor for the reskin modification and doing the programs concurrently would require renegotiation of the reskin contract, as well as assuming that Boeing will be the prime contractor on future JT3D reengining programs. The greatest drawback is the way aircraft are scheduled for the two programs. Aircraft are input for the reskin modification based on fatigue limits and this results in a mixture of different series aircraft in reskin at any one time. These would not necessarily be the same aircraft we would want to reengine. As a result, we would have to have a less than optimum reskin program, reengine program, or both to accommodate concurrent modifications. It would also require long lead times to set up a concurrent program. The reskin kits are long lead items, and production and delivery of the kits are based on the aircraft input schedule. Since the kits are different for the different model/series aircraft, long lead times would be required to coordinate kit delivery schedules with aircraft input schedules. Combining the two programs could introduce a substantial element of risk into two programs which are currently low risk as independent programs.

O&M INSTALLATION COST IN FY 1983

QUESTION: The Senate Armed Services Committee recommended the addition of $115 million to the authorization for procurement of the JT3D engines. What is the O&M installation cost in FY 1983 associated with this add-on?

ANSWER: The DAF O&M installation cost in FY 1983 is $68.3 million. These engines will be installed on ANG KC-135 aircraft. This installation cost can be offset by reducing the ANG O&M appropriation by $8.4 million, which represents ANG POL and Depot Maintenance savings due to installation of these engines. As a matter of record, only $68.2 million is required in the Aircraft Procurement Account to purchase modification kits and spares for 28 aircraft in FY 1983.

TOTAL COST OF PACER GRADE

QUESTION: The Air Force is trying to maintain the old J-57 engine on the KC-135s by introducing the "Pacer Grade" program to extend the service life of these engines. What is the total cost of the program and cost per aircraft?

ANSWER: Pacer Grade currently applies to 344 KC-135 and 30 special purpose C-135 aircraft (1870 engines). The total cost to refurbish these 25-year-old engines to bring them back up to their original efficiency and to extend their life for 20 years is $947.9 million. This equates to $2.56 million per aircraft. However, due to budgetary constraints, the Air Force has programmed a limited Pacer Grade on these engines. This involves the replacement of three safety-of-flight related components only. They are the fuel manifold, the turbine, and the outer combustor case. The cost of this reduced program is $220 million, which is $.59 million per aircraft (including associated spare engines).

QUESTIONS SUBMITTED BY SENATOR STENNIS

747 VS C-5 TO ASSIST IN INTRA-THEATER DELIVERY

QUESTION: General Allen, your statement mentions the intratheater problem that will continue to exist after procurement of either the 747 or the C-5. Have the studies indicated whether one system would be preferred over the other to assist in alleviating the intratheater delivery problem?

ANSWER: Neither the B747 nor the C-5 offers a significant intratheater delivery capability. An effective intratheater aircraft must be capable of expeditious operation through a broad spectrum of deployment airfields. This requires aircraft characteristics such as backup, reduced radius turns, combat offload, and high maneuverability which are not available in the B747 or C-5. However, as between the C-5 and B-747, the C-5 offers the better capability because of its ease of loading (drive on, drive off) without the necessity for prepositioning expensive materials handling equipment, and because it can land on shorter runways.

NEW INTRA-THEATER AIRCRAFT REQUIRED IN LATTER HALF OF 1980s

QUESTION: Is it your opinion that a new intratheater aircraft will be required in the latter half of the 1980s regardless of the military airlifter to be selected this year?

ANSWER: A valid requirement exists today for a new intratheater aircraft to increase the capability of the current theater force, add an outsize capability not available today, and replace the C-130 force as older aircraft reach the end of their service life. These requirements cannot be met by either the C-5 or commercially available wide-bodied aircraft. The intratheater requirement, however, would be reduced considerably by acquiring the C-17.

C-17 IN THE NEAR TERM

QUESTION: If the C-17 were available in the near term, would it be your opinion that this aircraft would satisfy our intertheater mission as well as the intra-theater mission?

ANSWER: The C-17 was specifically designed to integrate the existing airlift force by performing both the intertheater and intratheater mission. In the intratheater role, the C-17 will supplement the C-130s by providing the outsize and large volume capabilities required for unit moves and major resupply. Additionally, the direct delivery capability of the C-17 contributes to reducing the overall requirement for intratheater airlift.

WORLDWIDE LOGISTICS SUPPORT SYSTEM

QUESTION. We currently have a fleet of C-5 aircraft - so I assume a worldwide logistics support system is now in place, Is that correct?

ANSWER. We have a well established worldwide support system for the C-5 aircraft. It consists of two primary main operating bases in the CONUS, an extensive network of MAC enroute locations in overseas theaters, as well as a System Manager and technology repair centers within AFLC.

LOGISTICAL SUPPORT FOR THE 747

QUESTION: Do we have a similar system in place for the 747 aircraft? If not, what would be your estimate of the initial lay-in of logistical support for the 747, and what is your estimate of the annual cost of maintaining an additional world-wide support system?

ANSWER: The Air Force does not have an organic support capability for either the B747 or its engines at this time. Our small fleet of E-4 aircraft is supported by contract with Boeing. The Air Force estimate of the initial investment costs to establish a support system for a B747 force is approximately $8M per aircraft in FY 82 dollars. The annual operating and support cost for B747s, using an organic support system, is estimated to be $11M per aircraft in FY 82 dollars. 50% of this sum is fuel cost.

ELEMENTS INVOLVED IN A WORLDWIDE LOGISTICS SUPPORT SYSTEM

QUESTION: What elements would be involved in a worldwide logistics support system? I immediately think of spare parts requirements, but are there other requirements which would be duplicative of the existing C-5 system?

ANSWER: Logistics experience indicates that considerable duplication would be required. Aside from a near total duplication of spares and their management system, there are other areas that would be impacted. Some cargo handling equipment would not be compatible, due to the height of the B747 vice C-5 or C-141 aircraft; however, we do plan to increase our inventories of this type of equipment, somewhat, to support the KC-10. Similarly, nonpowered aerospace ground equipment would not be totally compatible. Equipment, such as engine change units and peculiar work-stands, would need to be duplicated. Contractor support and Air Force training programs would all be additional to our existing needs. A complete dedicated technical data system would be required. A separate aircraft maintenance management system would be required at the organizational, field and depot levels.

COMPARE CAPABILITY OF THE C-5 AIRCRAFT AND THE 747

QUESTION: Would you compare the capability of the C-5 aircraft and the 747 in achieving the dictated requirements for complete force closure time? Are there any advantages with one system over the other?

ANSWER: The comparative closure results of a force of 50 C-5Bs or 48 B747s added to the remainder of the DOD airlift program is shown in the following table. The measure of merit is expressed in brigade days in theater. A brigade day in theater is counted for each day that a complete Army or Marine Corps brigade, with all its equipment, is in theater and ready to fight. The comparison is made for the time period prior to sealift arrival.

CMMS Scenario	C-5B	B747
I	50	43
II	110	103
III	120	96
IV	138	103

This clear advantage for the C-5 is due to the difference in military utility offered by the C-5, especially in loadability and capability to airlift outsize cargo.

CRAF ENHANCEMENT PROGRAM

QUESTION: Your statement also mentions that we should continue to pursue a Civil Reserve Air Fleet (CRAF) Enhancement Program. This program has not been very successful in recent years. In fact, $47 million appropriated in fiscal year 1982 for this program is being used as a source of financing in a reprogramming request to finance advance procurement requirements for the C-5B aircraft. If this program is so important, then why are you reprogramming the funds?

QUESTION: What will the reprogramming of these funds do to your schedule for CRAF enhancement?

QUESTION: Are there other appropriated funds for this program which have not been obligated? If so, what are your plans for these funds?

ANSWER: The CRAF Enhancement Program remains the most cost effective way to obtain additional bulk and oversize airlift capability for use during a national emergency. For example, a B-747 aircraft which is purchased, properly configured and then maintained and operated by the Air Force would cost 4 to 6 times as much over its life cycle as the same aircraft obtained through the CRAF Enhancement Program. Most of the savings come from operating and support costs which the Air Force does not have to face with CRAF enhancement. The reprogramming of $47.7 million of FY 82 CRAF enhancement funds will not affect the program schedule, since it is highly unlikely that these funds could be obligated before the end of FY 82. Problems with the cost, availability and capability of aircraft offered for the program in early FY 82 prompted the Air Force to delay further funding until FY 84. Should an attractive offer be made by a potential participant prior to that time, funding for FY 83 from supplemental or reprogramming actions would be considered based on the merits of the proposal.

The $47.7 million in FY 82 and $73.2 million in unobligated funds from FY 80 and FY 81 have been submitted for reprogramming or reappropriation to support another critical airlift mobility program, the C-5B.

747 FREIGHTER CAPABILITY IN THE CRAF PROGRAM

QUESTION: We apparently have some civil 747 freighter capability in the CRAF program. How would you assess the cost of maintaining this capability in the CRAF program as compared with the cost of owning and maintaining a 747 military airlift fleet.

ANSWER: There are currently 31 B-747 freighter aircraft and 5 B-747 convertible aircraft, which would be used to move cargo, in the CRAF. All of these were acquired by civil carriers in response to the civil cargo market and are not part of the CRAF Enhancement Program. With the exception of some small administrative costs, these aircraft cost the Department of Defense nothing.

The addition of more convertible aircraft to the CRAF through the CRAF Enhancement Program would require DOD funding. However, this method remains the most cost effective way to obtain additional bulk and oversize airlift for use during a national emergency. For example, a B-747 aircraft which is purchased, properly configured and then maintained and operated by the Air Force would cost 4 to 6 times as much over its life cycle as the same aircraft obtained through CRAF enhancement.

C-5 AIRCRAFT AT EXISTING AIR FORCE FACILITIES

QUESTION: Is it your plan to base the additional C-5 aircraft at existing Air Force facilities, or will additional facilities be required?

ANSWER: We propose to bed down any new procurement of airlift at existing Air Force facilities to minimize the cost of construction, manpower requirements, maintenance facilities, etc. We will require additional facilities, such as increased ramp space, nose docks, and hangars, at our existing bases to accommodate the beddown of additional C-5s.

NEW FACILITIES FOR 747s

QUESTION. What about the 747s? Would new facilities be required if these aircraft are brought into the inventory? Why would this be?

ANSWER. We would propose to bed down Boeing 747s at existing Air Force installations to minimize construction, manpower requirements, and other base operating support (BOS) costs. At present, the only Air Force facilities designed for B747 use are limited facilities for the E-4 at Offutt AFB, Nebraska. Facilities designed for C-5 use are in large measure compatable with the B747, however, these facilities at Travis AFB, Dover AFB, and Altus AFB are all being utilized to the maximum extent possible. The introduction of either B747s or any significant number of additional C-5s to the MAC fleet will require increased facilities at their bed down locations.

COMPARE THE VARIOUS 747 PROCUREMENT ALTERNATIVES WITH...C-5 PROGRAM

QUESTION: Would you compare the availability of the various 747 procurement alternatives with the planned C-5 program? Would one system be available much earlier than the other? Is availability one of the prime considerations?

ANSWER: The Boeing Company offered four different options on the number of B747 aircraft it felt would be needed to replace either the C-5Bs or the combination of C-5Bs and KC-10s.

Boeing Alternative A is for replacement of the cargo capability only of the C-5Bs and KC-10s. Since part of the reasoning for the selection of the DOD program was the tanker capability offered by the KC-10, this alternative is unacceptable.

Alternatives C and D are based on modification of used B747s. These are not considered viable alternatives to the DOD program because the aircraft involved, for the most part, already belong to the Civil Reserve Air Fleet. If the sale of these aircraft to companies outside the US becomes imminent, then a form of lease/buy or another CRAF program could be considered to ensure their continued availability. In addition, the tanker capability offered in Alternative D is the type developed for the Iranians and was judged operationally unacceptable to the Air Force during the Advanced Tanker/Cargo Aircraft competition.

For these reasons, the most thorough evaluation of the Boeing proposal was limited to their Alternative B, to replace 50 C-5Bs with 48 new B747s. (Note: We do not agree that 48 747 equal 50 C-5B in capability.)

With respect to Alternative B, Boeing has proposed two efficient delivery schedules which can be compared to the proposed C-5B delivery schedule.

The faster schedule would provide initial operational capability approximately one year sooner than the C-5B and would attain the full capability of the 48 B747s approximately 2 years earlier than the 50 C-5Bs. The initial operational capability estimate is based on first deliveries 38 months from contract go-ahead for C-5 and 12 months for the B747. From this apparent 26 month advantage for the B747 must be subtracted 6 months for a competition between the B747 and other commercial wide-bodies as well as 9 months needed for initial squadron activation of a new commercial aircraft entering the USAF inventory (based on KC-10 experience).

The slower schedule would provide initial operational capability approximately 6 months later than the C-5B but would attain full capacity at approximately the same time. The difference in their two schedules is in the outlays required, especially in the next three fiscal years.

The following table displays the estimated outlays for the C-5B and B747 schedules:

	Outlays ($ millions)		
	FY 83	FY 84	FY 85
C-5B	182.2	629.4	1424.7
B747 fast	563.7	1579.7	1615.9
B747 slow	0	107.9	648.6

AVAILABILITY OF C-5 OVER C-17

QUESTION: Availability was a consideration in the decision to go to procurement of the C-5 over the C-17. Has this consideration now been downgraded?

ANSWER: No. The differences in the availability for the C-5 and C-17 can vary depending on the funding available for each program and the amount of concurrency embedded in the C-17 program. However, in all cases, the availability of the C-5 is earlier than the C-17. Early availability continues to be important because of the pressing need for increased outsize airlift capability.

UPGRADE OF PRESENT COMMAND AND CONTROL SYSTEM

QUESTION: General Allen, your statement mentions a long-overdue upgrade of your present command and control system. Would you be a bit more specific and discuss the steps being taken to improve these assets?

How much is in the fiscal year 1983 budget request for these improvements?

ANSWER: MAC has taken three key steps to upgrade our command and control (C2) system. First, we conducted an in-house study to determine the essential elements of information needed by our C2 system in wartime. Next, we published an airlift C2 concept of operations which outlined how our C2 system functions and which elements work for whom. Finally, we had an independent contractor take an in-depth look at our C2 system's global responsibilities, current requirements, and available capabilities. Using these baselines, the contractor ascertained our C2 deficiencies and proposed a set of solutions to correct them. These solutions, which have been integrated in an implementation plan, are composed primarily of state-of-the-art, off-the-shelf equipment available for use in our C2 system now.

The major focus of the proposed upgrade is in the communications connectivity areas of high frequency (HF) radio and satellite communications. In the HF area, we are replacing 1950 and 60's technology equipment with the new Air Force standard systems. These systems will serve as the baseline for subsequent evolution to an anti-jam capability in the mid- to far-term.

In the satellite communications area, we are acquiring presently available systems, both in the ultra-high frequency (UHF) and super-high frequency (SHF) ranges. The UHF systems will be integrated and packaged in a manner that will allow the same set of equipment to be used in both the airborne and ground modes of operation. The SHF system is the jam-resistant secure communications (JRSC) family that will allow us to be more responsive to the NCA and other CINCs.

The need for secure anti-jam communications was also noted by the contractor. We are actively participating in the programs that will secure our command and control communications, such as the VINSON/PARKHILL programs, and programs that will provide a measure of anti-jam capability, such as the HAVE-QUICK program. Another area of concern was a shortage of shelters. We have begun to remedy this shortfall with the development of the MAC Airlift Control Element Reaction Communications (MARC) System. The MARC System, coupled with the AFCC Quick Reaction Package (QRP), will provide the capability to extend our command and control of the airlift force into unimproved areas where fixed communications are either nonexistent or require augmentation.

Our FY 83 budget request contains a very modest 9.8 million (3.3 million for R&D efforts toward integration of UHF SATCOM equipment and the remainder in procurement to start production of the MAC Airlift Control Element Reaction Communications (MARC) System).

RECOMMENDATIONS FOR AN AIRLIFT AUGMENTATION PROGRAM

QUESTION: The fiscal year 1982 Authorization Act includes the provision that funds previously appropriated for the C-17 aircraft development efforts not be obligated until 30 days after the Congress has been notified of your recommendation for an airlift augmentation program. Has this been done?

ANSWER: On April 15, 1982 all interested Congressional Committees were notified of the Department's recommendations for an airlift augmentation program. As indicated in this letter aircraft development efforts based on the C-17 design are recommended to continue at a modest pace using the unobligated balance of the FY81 R&D C-X appropriation. This recommendation will preserve the option to begin development of a flight test production vehicle in FY 1984.

OUTSIZED AND OVERSIZED CAPABILITY

QUESTION: The mobility study found that an outsized carrier providing both outsized and oversized capability is more efficient than an oversized carrier alone. Would you comment a bit more on this finding and its application to mobility requirements?

ANSWER: The key factor in airlift efficiency is flexibility. While the CMMS defines outsized, oversized and bulk requirements for a set of specific scenarios, it would be imprudent to view all airlift taskings in terms of CMMS requirements alone. The relative proportions of outsized and oversized airlift tasking must be responsive to the force requirements of the supported commander. An aircraft that is both an outsized and oversized carrier provides greater flexibility. For example, the capability of the C-5 to carry all categories of cargo permits load planners to mix outsized and oversized cargo, thereby simplifying scheduling and improving our ability to retain the integrity of the unit being moved.

747 PLAN FOR MOVEMENT OF OUTSIZED CARGO

QUESTION: The 747 plan provides for movement of the outsized cargo requirements by the existing fleet of C-5 aircraft after the rewinging modification. Is this possible in your opinion?

ANSWER: The Boeing Proposal is based on the airlift requirements of CMMS Scenario I (Persian Gulf). Using only the existing C-5As, it is not possible to meet the specified required delivery day (RDD) criteria. The additional bulk and oversized capability represented by the 747 can help to reduce the overall closure time, but RDDs cannot be met without additional outsized capability.

ARMY AND MARINE EQUIPMENT THAT QUALIFY AS OUTSIZED

QUESTION: Would you comment on the various items in the Army and Marine inventories that qualify as outsized and which can only be carried by C-5 aircraft?

ANSWER: Outsize cargo is air cargo that exceeds 828 inches long by 117 inches wide by 105 inches high in any dimension (the loading capability of the C-141 aircraft) and normally requires use of C-5 aircraft. With its nose door measuring 228 inches wide by 162 inches high, the C-5 is the only aircraft in the current inventory capable of accommodating the exceptionally large items of Army and Marine equipment. Some of the more recognizable of these items are the M-60 or M-1 main battle tanks, the CH-47A Chinook helicopter, self-propelled howitzers, heavy equipment transporters, the Roland Air Defense System, and various military shop vans.

C-5 AIRCRAFT OPERATIONAL UTILITY

QUESTION: The Air Force recently had an evaluation of C-5 aircraft operational utility. Would you comment on your findings? Would you say that the test results indicate that the design goals of the C-5A continue to be met?

ANSWER: The C-5 Operational Utility Evaluation demonstrated the capability of the C-5 to perform typical ground maneuvers successfully on unprepared surfaces. These maneuvers consisted of taxi, onload, and offload on surfaces with strength of CBR 9 and above when CBR 100 is the equivalent of well graded crushed stone. MAC determined the off-pavement capability, while it should not be included in any contingency war plans, but could be used in an emergency operation. Preconditions necessary for a successful off-pavement operation (weather, soil strength, obstacles, etc) are impossible to predict in advance.

Yes, the C-5A continues to meet design goals.

OTHER AIRLIFT PROGRAMS FOR LOCKHEED AND BOEING

QUESTION: Is Lockheed currently involved in other airlift programs for the Air Force? What is your current assessment of their performance on these programs relative to cost and schedule?

What about Boeing? Are there other programs on which to assess their performance relative to cost and schedule?

ANSWER: Lockheed is extensively involved with airlift aircraft in production of C-130s and major modifications on C-130, C-5 and C-141. The Air Force has been very satisfied with their performance on these programs. Boeing is not involved with airlift programs, however, they are involved with the E-3A production and E-4A, B-52, and C/KC-135 major modification programs. The Air Force has been equally satisfied with Boeing's performance on these programs.

NUMBER OF 747'S TO EQUATE TO 50 C-5B'S

QUESTION: What does it take in numbers of 747-type aircraft to equate to the 50 C-5B aircraft that are contained in the current request? I have heard numbers of between 48 and 70.

ANSWER: Boeing has stated that 48 new B747-200F aircraft will provide the same ton-mile capability as the 50 C-5Bs in the DOD airlift program. The Air Force does not agree that this is the number required to replace the C-5Bs. Even when using Boeing's assumptions (with which the Air Force does not fully agree) about helicopter disassembly, acceptable loading clearances, and C-5 allowable cabin loads, the Air Force estimates that 55 B747s (48 PAA) are required to provide the same force closure capability as the 50 C-5Bs (44 PAA).

Under Air Force criteria for disassembly clearances and C-5 loads, no number of B747s can fully replace 50 C-5Bs. The outsize cargo to be moved constrains the B747s from closing forces in the same time period. Stated another way, we find an equal cost 747 force (58 aircraft) to be less effective than 50 C5B.

COMMENT ON DIFFERENCES TO THE LIFE CYCLE COSTS

QUESTION: Regardless of the numbers of 747-type aircraft to equate to the 50 C-5Bs, what is the life-cycle cost difference for the two fleets? General Burke, I believe your testimony before the Armed Services Committee last month was that the life-cycle cost difference would be less than $1 billion. I am told that other Air Force witnesses have testified before the House Appropriations Defense Subcommittee, that a 20-year life-cycle cost difference between buying 48 747-type aircraft and 50 C-5Bs is on an order of magnitude of around $4 billion. Would you comment on this disparity?

ANSWER: The Boeing Company offered to replace 50 C-5Bs with 48 new B747s.

The acquisition cost for the two programs in constant FY 1981 dollars is $5.9B for the C-5B and $3.5B for the B747s. These estimates were accomplished by the Air Force and the OSD Cost Analysis Improvement Group on a rigorously comparable basis. They include funds for initial spares, peculiar support equipment, technical data, future engineering changes, and program management costs.

The portion of these funding requirements covered by the respective unsolicited proposals is $4.9B for the C-5B proposal and $3.0B for the B747 proposal. The ratio of contractor price to total acquisition cost is 83% for Lockheed and 86% for Boeing.

Boeing has proposed a contractor logistic support concept for the B747. The Air Force is not convinced this concept would be acceptable for a worldwide committed airlift system. In addition, when making operating and support cost comparisons, it is important that candidate aircraft be charged for the same costs and tasks. For these reasons, the Air Force believes that a proper cost comparison should use the same support concept for both proposals.

The operating and support costs for the C-5B and B747 have been estimated by the Air Force and OSD CAIG. These estimates differ from Boeing in two key areas: (1) Boeing estimates the average peacetime fuel consumption to be 25% less than the Air Force estimate, and (2) Boeing estimates lower spares and depot maintenance costs associated with a contractor logistic support concept rather than an organic support concept, such as the one presently used on the MAC C-5, C-141, and C-130 force.

These O&S cost estimates are:

FY 81 $ Billions

Boeing	AF	Lockheed	AF
48/B747	48/B747	50/C-5B	50/C-5B
$6.0B	$8.5B	$7.3B	$8.8B

When these costs are added to the acquisition costs stated earlier, the life cycle cost estimates are:

FY 81 $ billions

Boeing	AF	Lockheed	AF
48/B747	48/B747	50/C-5B	50/C-5B
$9.0B	$12.1B	$12.2B	$14.7B

Therefore, the Air Force and OSD CAIG estimate of the life cycle cost differential between the B747 and the preferred best C-5B program is $2.6B (FY 81 dollars) lower for the B747.

Finally, the Air Force does not agree that 48 is the number of B747s required to replace the 50 C-5s to be added to the USAF organic airlift force under the DoD airlift program. Even when using Boeing's assumptions (with which the Air Force does not fully agree) about the helicopter disassembly, acceptable loading clearances, and C-5 allowable cabin loads the Air Force estimates that 55 B747s (48 PAA) are required to provide the same force closure capability as 50 C-5Bs (44 PAA). Based on these numbers, the life cycle cost comparison becomes:

FY 81 $ billions

AF	AF
55/B747	50/C-5B
$13.8B	$14.7B

This estimate is $.9B lower for the B-747, rather than the nearly $6.0B differential claimed by Boeing. The far greater military capability and utility of the C-5B clearly justifies this additional cost.

GREATEST MILITARY UTILITY

QUESTION: In your opinion, regardless of the life-cycle cost difference , which do you believe has the greatest military utility?

ANSWER: There is no doubt that the C-5B, which was designed as a military airlifter, has far greater military utility than the B747.

AMENDMENT OF SENATOR JACKSON

Senator **Stevens**. This battle, I understand, is going to be fought on the floor on Tuesday in terms of an amendment of Senator Jackson dealing with a 1-year concept of purchasing the surplus 10's and 747's with 1983 money and looking to 1984 to start something, C-17's or C-5B's. I would like to have your analysis of that option. Have you analyzed that option, Senator Jackson's option?

General **Allen**. I am not familiar with this option, Mr. Chairman. With regard to this DC-10 question, however, in our request for proposals for the conversion of wide bodies from passenger carrying to passenger to cargo we got in 53 bids on DC-10s. Forty-nine of those were the 10's and only four of them were the longer-range 30's.

Senator **Stevens**. I would be interested in your analysis of this option. I think it is going to be, as I understand it, a Tuesday vote now. We just received word the DOD bill has been continued until Tuesday.

As I understand the proposal, the 1983 moneys could be used to purchase oversized equipment available on the market. The 1984 moneys would be committed to either starting the C-5B or starting the C-17.

[The information follows:]

Purchase Surplus 10's and 747's With 1983 Funds

The Air Force has not evaluated a proposal to buy surplus aircraft on a single year procurement. We have evaluated the purchase of a fleet of such aircraft over several years and have rejected it because the aircraft available do not meet our requirement for additional outsize capability.

General **Allen**. Well, inasmuch as the lack of outsize capability is our most critical shortfall, if there were some combination of that nature, as the Commander in Chief of the Military Airlift Command I would prefer to start and get the additional outsize capabilities represented by the C-5 and give the second priority to 747's.

FUNDING TO START C-17

Senator **Stevens**. Well, what would be the funding to start the C-17 in 1983?

General **Allen**. I would defer to General Burke on that.

General **Burke**. I would think we would start around the $200 million level. The staff says we could get going with that, assuming that we spend the $32 million that we now have.

Senator **Stevens**. How much do you have in here for the C-5B?

General **Burke**. $800 million.

Senator **Stevens**. Thank you, gentlemen. We appreciate your help.

SUBCOMMITTEE RECESS

The subcommittee will stand in recess until Wednesday, May 12 at 10 a.m. when we will receive testimony on RDJTF/Readiness.

[Whereupon, at 12:15 p.m., Thursday, May 6, the subcommittee was recessed, to reconvene at 10 a.m., Wednesday, May 12, 1982.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1983

THURSDAY, JUNE 24, 1982

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The subcommittee met at 8 a.m., in room 1114, Everett McKinley Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Garn, Rudman, and Eagleton; also present: Senator Mattingly.

AIRLIFT ENHANCEMENT PROGRAM

NONDEPARTMENTAL WITNESSES

OPENING STATEMENT OF SENATOR STEVENS

Senator STEVENS. Good morning, gentlemen. This is the time scheduled to hear non-Government witnesses interested in the military airlift enhancement issue.

This issue, obviously, has become a major controversy. In its action on the 1983 Defense authorization, the Senate rejected the Defense Department's request to begin acquiring 50 C-5B aircraft in favor of commercial wide-bodied transports adaptable for military use. We do not know yet what the House decision on this issue will be.

Meanwhile, there is revived interest in the C-X program under which the Air Force wants to develop and acquire a new generation transport suitable for intratheater and limited airport operations as well as outsize cargo.

Regardless of what happens with the authorization bill, this committee will have to make far-reaching decisions with respect to airlift enhancement, not only for the type of aircraft to procure and maintain in reserve, but the overall scope of the proposed expansion. Related issues include the acquisition of KC-10 aircraft, and the upgrading of C-130's, C-141's and others.

We have already conducted a lengthy hearing with witnesses from the Defense Department, notably from the Air Force. It was at this hearing that the Air Force supported its request for new C-5B procurement, but stressed a continuing need in the future for a new aircraft such as the C-17 selected under the C-X program.

Today's hearing is to help gather more factual information from those directly involved in aircraft development and production. It would be in the committee's own interest to keep this hearing impartial, but to encourage a free exchange so that as much information can be gathered as possible.

We also have a witness representing interests not directly tied to the military or defense contracting industry.

We are going to proceed first with representatives from major contractors who were specifically invited to attend. We will hear first from Boeing, then from Lockheed and then from McDonnell-Douglas in that order.

We welcome you all to the committee. In each instance we will see that your complete prepared statement is printed in the record. We ask you to highlight your major points in your statement and be available for questions from the committee.

We also ask that you identify those who are with you at the witness table for the record, before you proceed.

VALIDITY OF LOBBYING EFFORT

I have one comment to make about the problems to date. That pertains to our reaction—not only mine, but I think other members of the committee—to the document that indicates that there has been not only a coordinated intense lobbying effort, but also a computerized lobbying effort as far as this issue is concerned. We have been asked to look into the question as to whether or not this lobbying effort violates existing law.

I will have a meeting of the committee and we will take that up at a later time. But I will say that the lobbying on this issue is geting more intense than any issue I have seen this year so far in the defense area, and my advice to you is to cool it, because everyone is going to lose in terms of this effort to improve the airlift if the sides are drawn so firmly that no one is willing to look at what is in the best interest of the country as a whole.

I am going to stop having appointments with any member of any firm that has any interest in this issue. If we want additional information we will ask for it. That is what the law says at the present time. That includes the Air Force.

There has just been too much lobbying as far as I am concerned, and if you will take my advice you will stay away from the other members of this committee, too.

The first witness is Mr. Clyde Skeen, senior vice president of the Boeing Co.

Pardon me, my good friend from Missouri, Senator Eagleton.

OPENING REMARKS OF SENATOR EAGLETON

Senator EAGLETON. I have a brief statement. I join with you and the other members of this subcommittee in welcoming this morning's hearing and the witnesses to testify. I commend them for their attendance at this early hour and I look forward to receiving their testimony.

Also, I would like to commend you, Mr. Chairman, for convening this hearing.

As we all know, airlift has become the subject of considerable controversy, you have highlighted that by your concluding remarks. Congressional approval to proceed with the program to correct nonairlift deficiencies may yet be denied or deferred unless we can clear up some of the confusion that surrounds this program.

With the possible exception of the MX no program has changed configuration so often in so short a period of time. No program is as haunted by contested cost and production estimates. No other program has seen the testimony of administration officials change so dramatically from hearing to hearing and from month to month.

Airlift is certainly not the most glamorous of Pentagon programs, but it is, perhaps, the most pressing military issue confronting the Congress today.

Decisions made during the next few years concerning airlift will define the extent of our ability to meet military commitments abroad for at least the next quarter of the century. If the Congress is going to faithfully execute its responsibility in this matter, we must know the facts and have accurate information. In this regard, convening this hearing was not simply appropriate, it was essential.

I wish to identify myself with your concluding remarks with respect to the intensity and ferocity of the lobbying on this issue. Lobbying is an accepted technique of petitioning Congress, but whether it is carried on at such length with such unlimited zealotry. It can, in fact, be counterproductive. I think your advice of "cool it" was sage advice and I hope it will be heeded.

Senator Stevens. Thank you, Senator.

Senator Garn, do you have a statement?

Senator Garn. I have no opening statement.

Senator Stevens. We have Senator Mattingly with us, a member of the full committee. Do you want to make a statement?

Senator Mattingly. No.

Senator Stevens. Our first witness is Clyde Skeen, senior vice president of the Boeing Co.

Mr. Skeen, I would be happy to hear your testimony.

THE BOEING CO.

STATEMENT OF CLYDE SKEEN, SENIOR VICE PRESIDENT, THE BOEING CO.

ACCOMPANIED BY MICHAEL BOYCE, 747 MILITARY AIRLIFT PROGRAM MANAGER, SEATTLE

BIOGRAPHICAL SKETCH

Mr. Skeen. Mr. Chairman, members of the committee, I would like to thank you, sir, for providing the Boeing Co. this opportunity to present our views regarding this important airlift issue which is before Congress this year.

As you stated, my name is Clyde Skeen. I am a senior vice president of the Boeing Co. My responsibilities include direct corporate supervision of the three principal Boeing companies which do business with the Government.

I first joined the Boeing Co. right out of college in 1940 and became assistant secretary-treasurer and divisional controller in 1949, corporate controller in 1952, and I was elected vice president in charge of systems program management in 1958.

I left the Boeing Co. in 1960 to help form a major conglomerate for which I became, successfully, executive vice president and president. This conglomerate had principal subsidiaries in aircraft design and manufacturing, aerospace, and was also the majority owner of a major U.S. airline.

I rejoined the Boeing Co. about 3½ years ago, thus I am driving up on my 43d year in the aircraft, aerospace, airline, and related businesses.

Accompanying me today is Mr. Michael Boyce, sitting on my right, who is a 747 military airlift program manager. Mr. Boyce resides in Seattle.

FORMAT FOR BOEING TESTIMONY

Our plan today, Mr. Chairman, with your permission is to make some brief opening remarks which will place into perspective Boeing's analyses of the military airlift requirements and our proposal to the Defense Department for the proven 747's to resolve these requirements.

We are also prepared to answer any and all questions that you and members of the committee may have on this subject.

I will review Boeing's involvement in military airlift programs and the sequence of events which lead to my being here representing Boeing today. I will then review our airlift proposal, the airlift requirements as understood by Boeing on the basis of substantial, in-depth analyses which we have performed over the past few years.

Then finally, I will address criticisms of the 747 as a military airlifter which have been articulated over the past several months, hopefully from a dispassionate and objective viewpoint.

BOEING CO. AIRLIFT EXPERIENCE

As you may be aware, Boeing's experience with military air transport and airlift goes back many years with the C–97 and C–135 which were operated by the Military Air Transport Service [MATS]. For the past 10 years, we have been directly involved with the Air Force and the Defense Department with respect to new airlift programs.

We participated directly in the advanced medium STOL transport, the so-called AMST program. We won one of the contracts to build two advance prototypes to demonstrate short takeoff and landing technology with unimproved field capability in an airplane that was intended to replace the C–130.

McDonnell-Douglas won the other contract and each of our companies designed, manufactured, and extensively flight tested two aircraft. That program cost the Government more than $200 million and the Boeing Co. made additional investment in the program of many millions of dollars.

I believe that you are aware that on the basis of demonstrated capability the AMST program was extremely successful from a technical and performance standpoint. However, the program was canceled by the prior administration.

INITIATION OF C-X PROGRAM

Now subsequent to the AMST program cancellation, the C-X program was initiated. The Defense Department and the Air Force developed a set of requirements fundamentally based on the concept of moving the rapid deployment force [RDF] from the United States to Southwest Asia because of our country's critical interests in that particular area.

The C-X requirements, as they were finally published and specified to industry as a part of the formal request for proposal, were believed by Boeing to be a very rational, sound statement of need for a versatile new airlift aircraft that could perform both the strategic airlift mission and the tactical airlift mission. Those requirements were developed at the direction of the Congress and were reported to the Congress in the form of the congressionally mandated mobility study [CMMS].

It was Boeing's opinion that the C-X program had solid Air Force, Army, Marine Corps, and Defense Department support. Therefore, we made the decision, as well as McDonnell-Douglas and Lockheed, at their own expense, participated in the preproposal and the proproposal and the proposal work for that competition.

RESULT OF CONTRACT COMPETITION

The result of the competition which took almost 2 years to be completed was that the McDonnell-Douglas Corp. was announced as the winner August 28, 1981. We were obviously disappointed at the announcement of the winner—you really never like to lose—since we believe we offered a very competitive airplane and a very attractive business package to the Government. Nonetheless, we accepted the DOD decision to go ahead with the McDonnell-Douglas C-17 and we have supported that program for the national interests.

Now, prior to the announcement of the winner for the C-X program (now the C-17 program), the Boeing Co. submitted on June 5, 1981, a proposal to the Air Force for near-term airlift, because the C-17 initial operating capability [IOC] was 1988.

We also perceived that the Government, based upon authoritative public statements, recognized that there was indeed a very critical need to add strategic airlift capability as quickly as possible to the existing military airlift command assets.

In January of this year, the Defense Department announced its decision to set aside the C-X competition results and proceed on a sole-source procurement of 50 C-5 aircraft. A concurrent announcement was also made which indicated the procurement of 44 KC-10's. The combination of these two aircraft, plus already available MAC assets, was the proposed program to address the airlift problem.

The basic rationale for the decision as publicly announced was based on a critical near-term need for strategic airlift—that is the C-5B could be delivered sooner than the C-17.

At that point, the Boeing Co. analyzed the Defense Department's program relative to the airlift requirements stated in the congressionally mandated mobility study which was addressed to the Congress. That study took a year to complete, it was approved by the

Joint Chiefs of Staff, and delivered to Congress under signature of the Secretary of Defense, and was described as the authoritative statement of requirements for mobility.

As a matter of fact, the Air Force rationale for going ahead with the C-17 program, and later the Defense Department rationale for going ahead with the C-5 program was based on the CMMS—specifically on the scenario in the CMMS which dealt with moving the Rapid Deployment Force from the United States to Southwest Asia, so-called CMMS scenario one.

The Boeing Co., having developed the sophisticated computer modeling capability and analytical tools with which to analyze the stated requirements then determined the operational impact of the Defense Department airlift decision on the movement of the RDF to Southwest Asia.

Mr. Chairman, I know in this, the day of the computer, computerized modeling tools may mean completely different things to different people. Oversimplified, we placed on the computer in detail every item, every piece of equipment, bulk, oversize and outsize, its physical measurements, weight, and the sequence of loading necessary to maintain combat unit integrity all in strict accordance with the CMMS.

This analysis clearly showed that the addition of 48 new 747 freighters to the existing MAC fleet or the addition of 50 C-5B's to the existing MAC fleet had an identical operational outcome—that is, the movement of the Rapid Deployment Force to Southwest Asia in 27 days. The data used and the ground rules used were essentially the same as DOD data. This conclusion has also been supported by Air Force systems analysis, the Congressional Budget Office and the GAO.

Again for emphasis, the Boeing analysis maintained combat unit integrity and these units were all closed in the same sequence that the CMMS demanded. The existing C-5 fleet owned by the Air Force can move all the outsized equipment associated with the RDF in 27 days.

Now as a point of reference, here the CMMS scenario one force to be airlifted is a formidable force. In fact, for comparision it is roughly equivalent in size and tonnage to the toal allied equipment which was sea-lifted by an armada of ships across the English channel to Normandy Beach in the first 6 days of that invasion.

So it was at that point that the Boeing Co. attempted to contact the Defense Department in order to present the complete rationale of our analysis and to remind DOD of the existing 747 airlift proposal as a very attractive alternative, based on tremendous cost savings and earlier airlift capability.

We were unsuccessful at making personal contact with DOD leadership so we then submitted the unsolicited formal proposal which will be discussed later. I would be remiss here in not making it quite clear before your committee, Mr. Chairman, that Boeing would much have preferred to present the detailed merits of our analysis and to discuss this proposal in depth with the Department of Defense and the Air Force.

Over the years, the best customer of the Boeing Co. has been the U.S. Government, primarily the Air Force, and ordinarily a company seeks to maintain a very amicable rapport with its best customer. However, in our considered judgment, our proposal has not been seriously or equitably evaluated and we have no recourse other than to submit our views and rationale to the Congress.

CIVIL RESERVE AIR FLEET [CRAF] ENHANCEMENT

Aside from the new military airlifter programs, and in parallel to this Defense Department activity, the Air Force and Congress were also attempting to enhance the existing civil reserve air fleet [CRAF] cargo capability. As you are aware, all of the cargo airplanes, as well as most of the passenger airplanes owned by domestic carriers in this country, are committed to CRAF in a national emergency.

The purpose of the CRAF enhancement program was to increase the number of cargo-capable aircraft available to the Government in a national emergency with structural modifications to facilitate, thus enhance, cargo-carrying capability.

Boeing has supported the CRAF enhancement program actively since its inception. Since 1974 the Congress has authorized in excess of $500 million, and has actually appropriated $135 million to implement this program. However, the Air Force has been successful in contracting for only one DC-10-10 cargo convertible configuration lacking intercontinental range at the cost of $17 million.

The concept of the CRAF enhancement program is a sound one. However, market conditions, economic conditions in the country, as well as substantial problems in pulling together the manufacturers, the airlines, the Air Force and Congress in order to make this program go has been very difficult, to say the least.

It is Boeing's view that the CRAF enhancement program is the most cost-effective way to add bulk and oversize equipment capability to our Nation's airlift fleet. However, the record shows it just has not been successful.

It is also our opinion that success of the CRAF enhancement program in the future is largely dependent upon whether or not the Defense Department is willing to compensate the airlines adequately in order to alleviate the airlines' stockholder's risk of participation in the program.

The last ill-fated attempt at this was cancelled in the final hour because, in the opinion of the Government, the cost was too high. So, while we support the CRAF enhancement program in principle, we believe that the potential for its success is dependent upon a yet to be conceived formula equitable and acceptable to all parties.

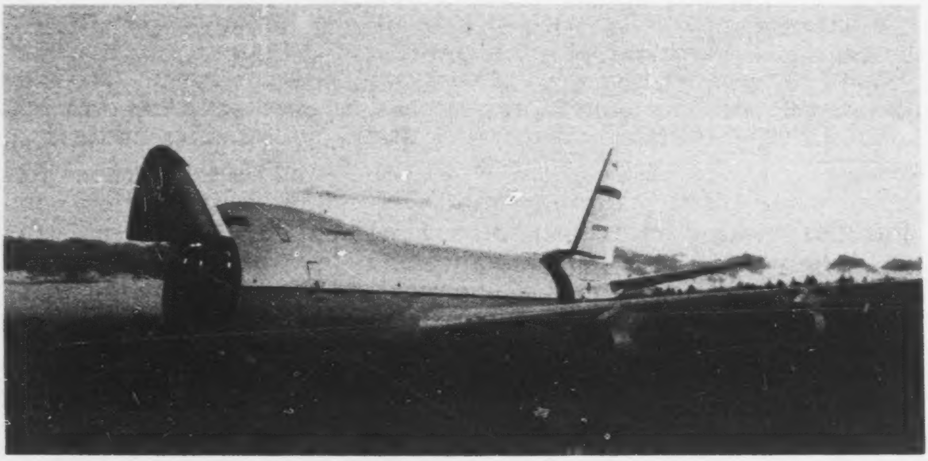
In fact, at the recent request of the Undersecretary of Defense, the Boeing Co. has surveyed the airlines, our customers, for a consensus of what might be an acceptable CRAF enhancement program to them and has recently transmitted to the Undersecretary for consideration a draft of a request for proposal.

As I implied, however, this is only one-half of the needed equation. The DOD, the Air Force, and the Congress must agree upon the amount of cost to reasonably compensate the airlines, not only for the physical modifications needed to the aircraft, but also for the loss of revenues in certain instances and for carrying around for an extended period—sometimes the remaining life cycle of the aircraft—the extra weight of the structural modifications which will enable the aircraft to carry cargo.

Nonetheless, the CRAF enhancement program or a direct purchase of commercial wide-body freighters, either new or used, would provide a near term, and equally capable and a substantially more cost-effective airlift alternative as compared with the proposed DOD program for the procurement of C–58 aircraft.

If you will, I have some viewgraphs here which I believe will help clarify some of the additional points I would like to make. With your permission, and in order to keep the time to a minimum, I will read from the script, keep seated here and make points or answer questions with an electric pointer.

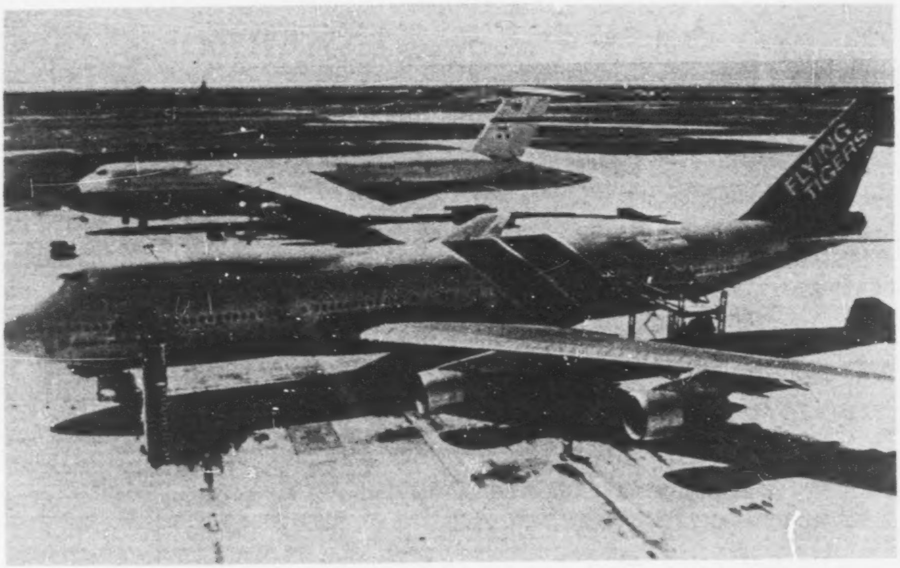
Thank you.



(VIEWGRAPH 1)

747F AIRCRAFT

Now at this point I would like to summarize the Boeing Co. proposal. Essentially there are two alternatives which the Boeing Co. has presented to the Defense Department. One for the procurement of new 747F aircraft depicted here, and



(Viewgraph 2)

REFURBISHED 747

The second for the procurement of surplus 747 aircraft refurbished and modified into freighter configuration. This is a picture of a passenger airplane converted to a freighter configuration.

Boeing 747F Proposal Summary

- **$58 million per aircraft (any quantity) firm fixed price (FY 1981 dollars)**
  - **833,000-lb maximum takeoff weight**
  - **Nose door and side cargo door**
  - **Fully automated cargohandling system**
  - **Oversize and bulk cargo capability**
  - **Flightcrew and maintenance personnel training**
- **Acquisition cost for forty-eight 747F aircraft (equivalent to fifty C-5B aircraft) is $3.686 billion (then-year dollars)**
- **Forty-eight aircraft delivered by FY 1986 (3 years prior to delivery of fifty C-5B aircraft)**
- **Guaranteed operating and support cost of $7.310 million per aircraft per year (FY 1981 dollars) includes–**
  - **Initial and replenishment spares**
  - **Unique support equipment**
  - **Contractor logistics support**
  - **USAF organizational-level maintenance**
  - **1,168 flying hours per year**
  - **20 flight line maintenance man-hours/flight hour**
  - **$900/flight hour depot level maintenance**
  - **2,865 gallons/hour average fuel burn (demonstrated on delivery)**

(Viewgraph 3)

PROPOSAL SUMMARY

The first proposal is for the Government to purchase new 747 freighter aircraft. We have formally offered to deliver one or more 747 freighter aircraft for a firm fixed price of $58 million per unit in 1981 dollars. Certified airplanes, no risk for development, no risk at all other than escalation risks.

The aircraft offered is the most capable 747 freighter manufactured today. It has a nose door and a side cargo door capable of loading and unloading oversize land bulk cargo. It has a fully automated cargo-handling system. This aircraft will carry more payload, further and faster than any other aircraft in the world.

Included in the acquisition price of the airplane is the technical data necessary for the Air Force to operate the airplane, and the training of flight crews and maintenance personnel.

In addition, Boeing has included the same structural service life guarantee offered to airlines which is 15,000 landings or 10 years.

Boeing will deliver with each aircraft, four fully trained flight crews and a maintenance cadre for flightline maintenance.

The acquisition of 48 747's, which are equivalent to 50 C-5B aircraft, in airlift capability is $3.686 billion dollars. The aircraft can be delivered 3 years prior to the delivery of the 50th C-5B, according to the Defense Department schedule. The first aircraft will be delivered only 12 months after program go-ahead.

In addition to a firm fixed-price proposal for aircraft acquisition the Boeing Co. has guaranteed the 20-year operating and support costs of these aircraft. This not-to-exceed guarantee provides for the purchase of initial and replenishment spares and for the purchase of unique or peculiar support equipment necessary for the 747.

It will provide for contractor logistics support [CLS] at the depot and intermediate level for maintenance of the aircraft and it also provides for Air Force organizational level maintenance and is based upon 20 flightline maintenance manhours per flight hour and $900 per flight hour for depot level maintenance. We have guaranteed and agreed to demonstrate on delivery the fuel burn rate of the aircraft. That is a summary of our new airplane proposal.

Proposal Summary

Surplus Boeing 747's Modified to Freighter

- **Price based on current used market price plus firm fixed price modification program. Average price is $44 million per aircraft (FY 1982 dollars)**
  - **750,000- to 800,000-lb maximum takeoff weight, depending on model**
  - **Side cargo door**
  - **Fully automated cargohandling system**
  - **Oversize and bulk cargo capability**
  - **Flightcrew and maintenance personnel training**
- **Acquisition cost for 50 modified and refurbished 747 aircraft (equivalent to fifty C-5B aircraft) is $3.2 billion (then-year dollars)**
- **Fifty aircraft delivered by FY 1986 (3 years prior to delivery of fifty C-5B aircraft)**
- **Operating and support cost estimate of $7.917 million per aircraft per year (FY 1982 dollars) includes–**
  - **Initial and replenishment spares**
  - **Unique support equipment**
  - **1,168 flying hours per year**
  - **Contractor logistics support**
  - **USAF organizational-level maintenance**
- **Structural service life guarantee for 10 years or 20,000 flight hours whichever occurs later**

(VIEWGRAPH 4)

PURCHASE OF SURPLUS DOMESTICALLY OWNED, COMMERCIAL AIRCRAFT

The second alternative program to the procurement of the C–5B is for the Government to purchase surplus, domestically owned wide-body commercial aircraft and for those aircraft to then be modified and refurbished into a freighter configuration.

By way of summarizing the capabilities of these aircraft, the only essential difference between the modified aircraft and the new aircraft is that the modified aircraft would not have a nose door. This does not significantly reduce the cargo-carrying capability of the aircraft. These aircraft would still have a fully automated cargo-handling system, and the capability to move oversize and bulk equipment.

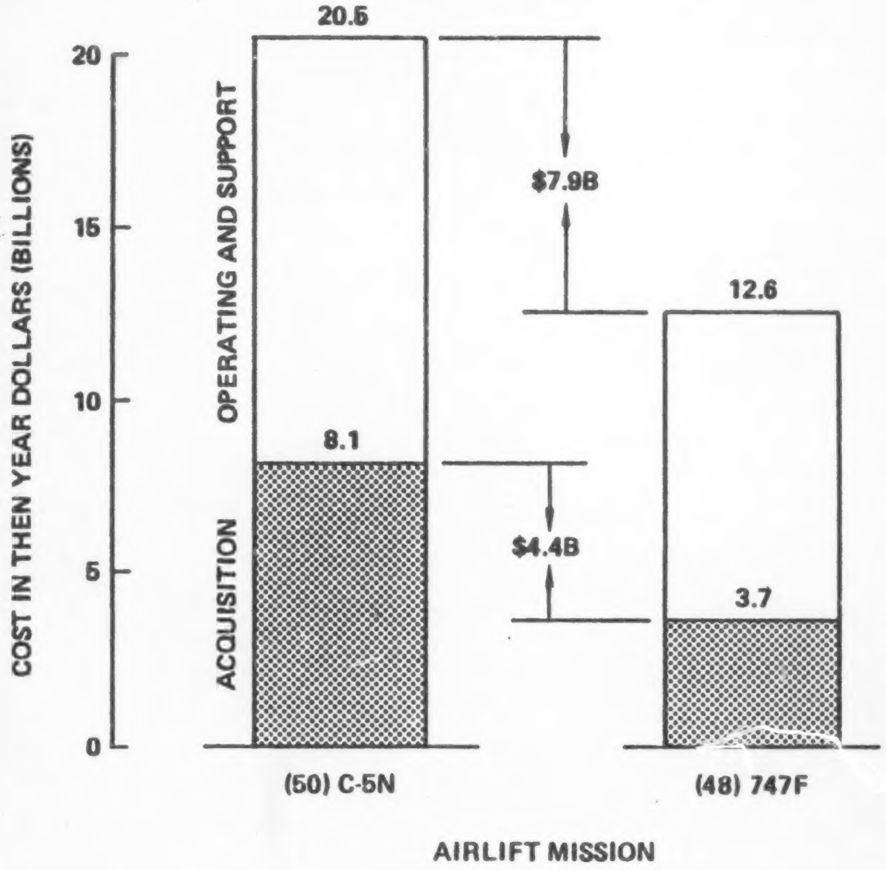
The proposal also provides for delivery of four trained flight crews and maintenance personnel at the time of delivery of the aircraft. The average cost of these aircraft, which includes purchase on the open market and modification costs for conversion into freighters is $44 million per aircraft in fiscal year 1982 dollars.

The acquisition cost for 50 of these aircraft, which is equivalent to 50 C–B's, is $3.2 billion in then-year dollars. These aircraft could also be delivered 3 years prior to the delivery of the 50th C–5B according to the Defense Department plan. The operational and support cost estimates for the used aircraft are essentially equal to the operational and support costs of the new aircraft.

Now, in addition, because there has been some question raised as to the remaining service life of these modified aircraft once delivered to the Air Force, the Boeing Co. has guaranteed a structural service life of 10 years or 20,000 flight hours, whichever occurs later. That means with the Air Force operating airplanes about 1,000 flight hours per year in peacetime, the structural service life is actually guaranteed for 20 years.

That, gentlemen, is a summary of our proposals.

Cost Comparison



(VIEWGRAPH 5)

20-YEAR SUPPORT COST LIFE

I would like to state at this time that Boeing believes the firm fixed-price offering including initial acquisition, the guaranteed performance, structural life and not-to-exceed operating and support costs for 20 years is quite unique in the history of the Government's procurement of airplanes.

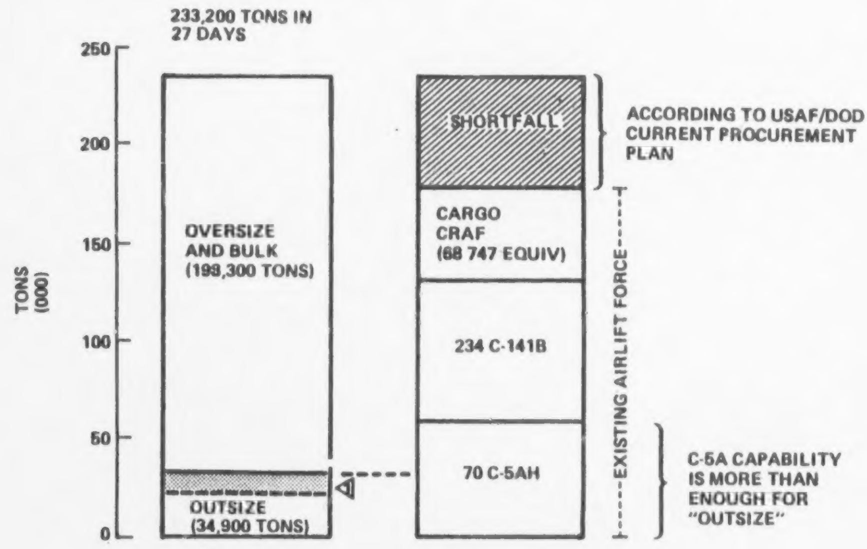
Furthermore, we believe this would be the first time in history the Congress and the taxpayer could be assured of a not-to-exceed 20-year cost of an important military system. We have essentially guaranteed to the Air Force a price and an operating and support cost which can save the taxpayers at least $8 billion relative to the stated costs of the C-5B.

As depicted here, the acquisition costs of the 747, 3.7 versus 8.1. Operational costs getting it up to 12.6 versus the numbers of 20.5 billion. The right-hand side of this chart is firm. Boeing is guaranteeing it.

Next I would like to address several issues which critics of our proposal have brought to the surface about the 747.

Strategic Airlift Capability

Rapid Deployment Force to the Middle East



◁ There are 144 main battle tanks and tank chassis vehicles in the RDF. All these are included as if they were to be airlifted.

Source: reference A, B, D, F, O.

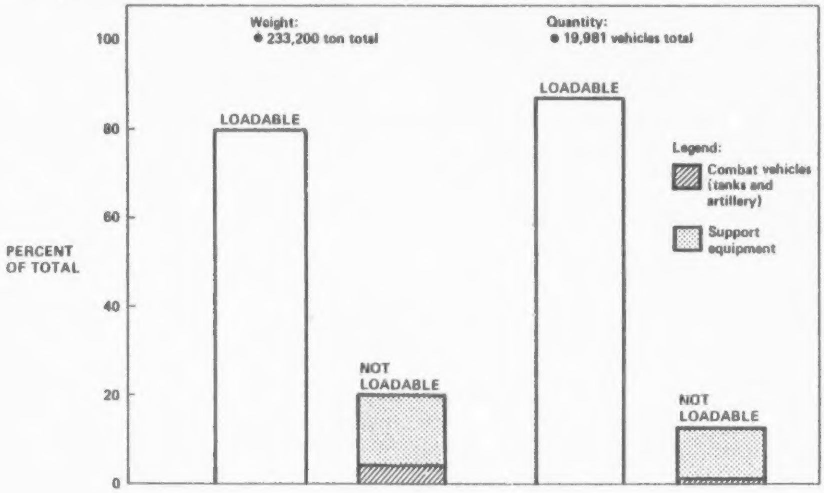
(VIEWGRAPH 6)

747 CAPABILITY OF CARRYING OUTSIZE CARGO

First, the critics say the 747 cannot carry outsized equipment (the standard DOD definition of "outsize" is equipment that will not go in a C–141, but will go in the C–5). It has always been our position that the 747 has only a limited capability at best for carrying outsize equipment. We have never stated that the 747 is capable of carrying the large cargo helicopters, the main battle tank and the self-propelled artillery included in the defined forces of the Rapid Deployment Force as per the CMMS.

Our analysis, summarized on this chart, concludes that the 747 will carry oversize and bulk equipment and the existing C–5's can adequately carry all of the outsized equipment as defined in the CMMS requirement. So we therefore believe that the outsized issue is really not an issue. The airlift shortfall as shown here is in the bulk and oversize cargo capability, and we have so stated this publicly many times.

747 Loadability
(Congressionally Mandated Mobility Study Scenario I)



Note: 100% of the pallets (28,868 pallets) are transportable in the 747F.

Source: reference A, B.

(VIEWGRAPH 7)

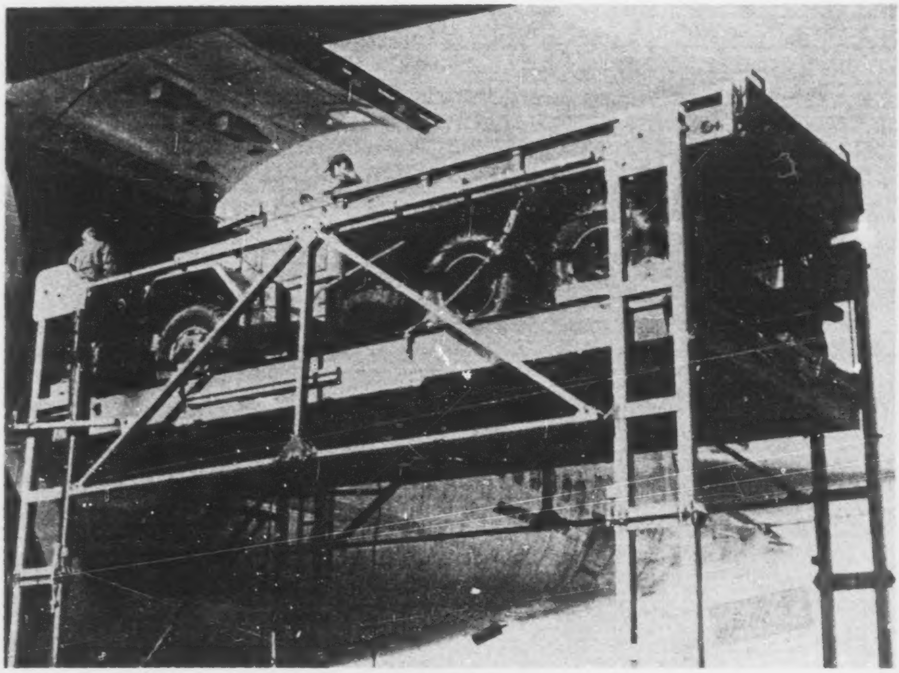
SOUTHWEST ASIA AIRLIFT LOADABILITY OF 747

This chart shows the precentage by weight on the left and on the right the percentage by quantity, of equipment defined by the CMMS for airlift to Southwest Asia that is loadable and not loadable in a 747.

Please note that the actual combat vehicles which are not loadable in the 747F are only a small fraction of the outsize requirment. The noncombat outsize equipment are such things as trucks and vans, cargo helicopters, bakery trucks, portable asphalt plants, and engineering equipment.

However, the combat vehicles include all the main battle tanks from an armor brigade. The Boeing analysis is based upon airlifting this armor brigade because DOD includes it in their analysis of CMMS scenario one. You should be aware that the CMMS specifically designates the armor brigade, including the main battle tanks for sealift, not airlift, at the DOD recommended level of additional airlift.

This was confirmed by Brig. Gen. Don Vogt, CMMS study director, in testimory before you committee on May 6, 1982. The inclusion of the armor brigade for airlift significantly increases the outsize job. Even so, the existing C-5 fleet can move all of the outsize equipment in the 27-day deployment time including the main battle tanks.



(VIEWGRAPH 8)

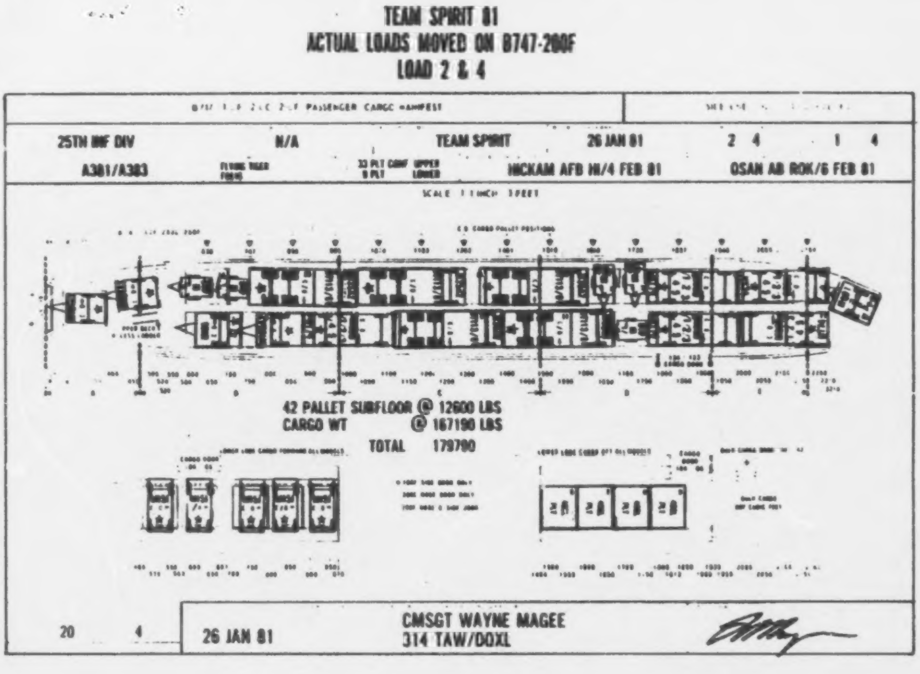
DIFFICULTY IN LOADING 747

The second issue that the critics raise regarding the 747 is the perceived difficulty of loading and unloading caused by the fact that the cargo deck is 16 feet off the ground. The existing Civil Reserve Air Fleet has 36 cargo-capable 747's in it today, as well as cargo-capable DC-10's.

In addition, the Air Force already owns KC-10's, as you know, and have recommended to procure an additional quantity of 44 KC-10's which will be primarily assigned, according to the Air Force, to support strategic airlift.

As a matter of fact, the Air Force currently owns, or has on order, equipment for loading and unloading these aircraft because they are planned for use in a strategic airlift contingency. Both of these aircraft, the 747 and KC-10, require elevator loaders for loading and unloading.

This is a photograph of an Air Force-owned Cochran-Booth main deck loader. This loader is transportable in the lower hold of a 747 and can be assembled in 2 hours, once delivered to destination. The Air Force annually exercise the Civil Reserve Air Fleet and they practice loading and unloading using this equipment.



TEAM SPIRIT 81
ACTUAL LOADS MOVED ON B747-200F
LOAD 2 & 4

25TH INF DIV
N/A
TEAM SPIRIT
26 JAN 81
2 4 1 4
A381/A383
HICKAM AFB HI/4 FEB 81
OSAN AB ROK/6 FEB 81

42 PALLET SUBFLOOR @ 12600 LBS
CARGO WT @ 167190 LBS
TOTAL 179790

20 4
26 JAN 81
CMSGT WAYNE MAGEE
314 TAW/DOXL

(VIEWGRAPH 9)

TEAM SPIRIT EXERCISE

In one such exercise which occurred in January 1981—Team Spirit 1981—a 747 was loaded with 80 tons of military equipment. This is the official report of this exercise from the Military Airlift

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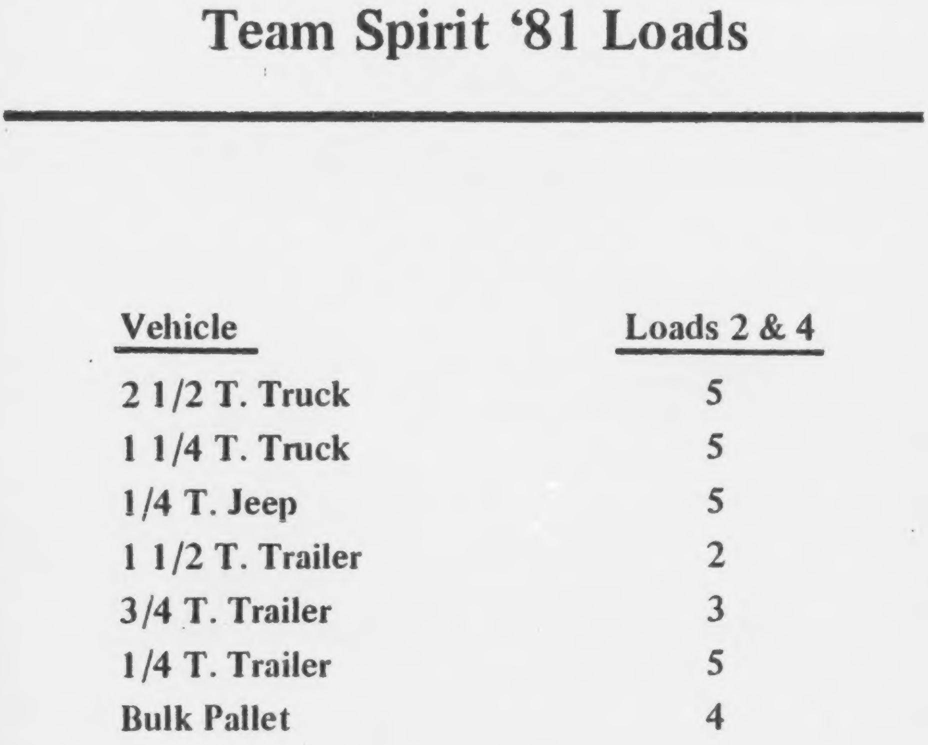
Command. It shows platforms at the lower deck here, 179,000 pounds signed off by the loadmaster here. Since you can't tell what was on that, that is a page from the book. Here are the vehicles that were shown.



Team Spirit '81 Loads

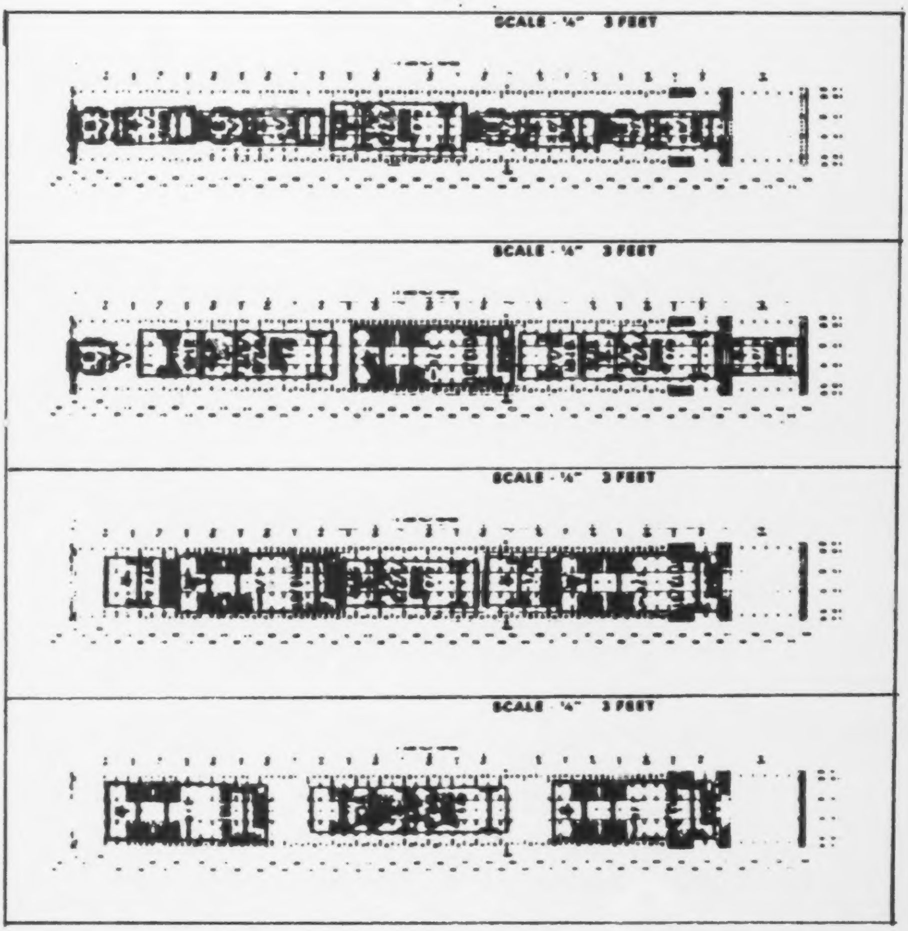
Vehicle	Loads 2 & 4
2 1/2 T. Truck	5
1 1/4 T. Truck	5
1/4 T. Jeep	5
1 1/2 T. Trailer	2
3/4 T. Trailer	3
1/4 T. Trailer	5
Bulk Pallet	4

(VIEWGRAPH 10)

VEHICLE TRANSPORT WEIGHT

These vehicles are the type of oversize equipment which comprise a substantial percentage—approximately 55 percent—of the total vehicles. The pallets shown are loaded with the type of bulk tonnage which comprise 33 percent of the total RDF weight.

TEAM SPIRIT 81
C-141B COMPARATIVE LOAD
(1)B747-200F E.G.(4) C-141B


SCALE · ¼" 3 FEET
SCALE · ¼" 3 FEET
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SCALE · ¼" 3 FEET

(VIEWGRAPH 11)

The Air Force also analyzed this very same load and determined that it would require four C–141 aircraft to move the same oversize equipment.

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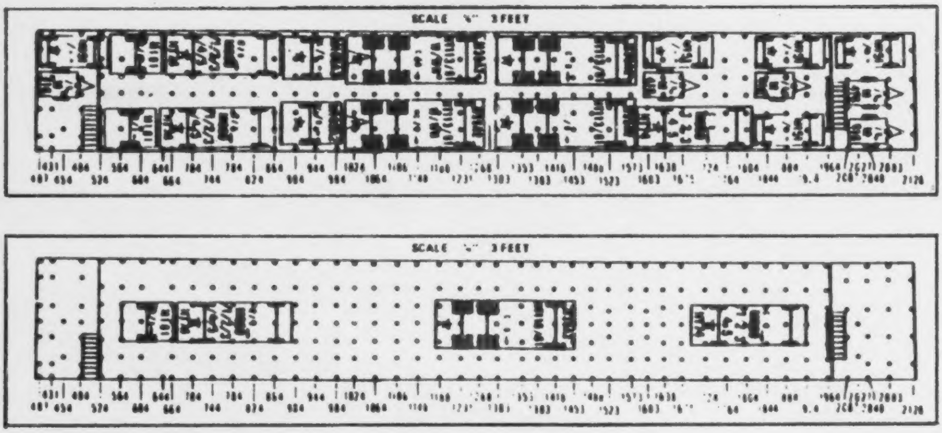
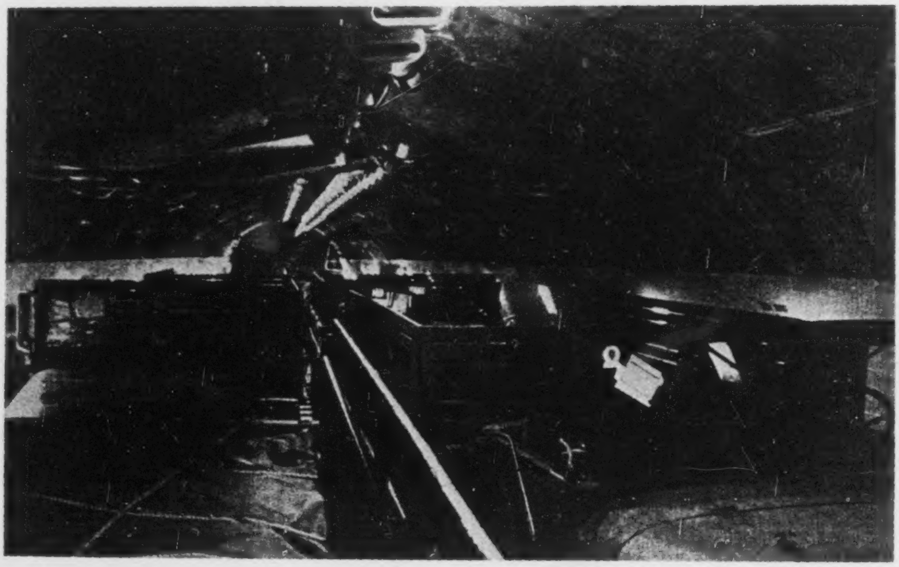
TEAM SPIRIT 81
C-5A COMPARATIVE LOAD
(1)B747-200F E.G.(2) C-5A



(VIEWGRAPH 12)

Additionally, the Air Force analysis determined that 1½ C-5's were required to move the same oversize and bulk equuipment.



(VIEWGRAPH 13)

NONSTOP DISTANCE CAPABILITY OF 747F

Again, I am pulling out the official MAC report of that exercise. This is a photo taken of the equipment that you saw on the 747 once it was loaded. It took the Air Force 1 hour and 28 minutes to

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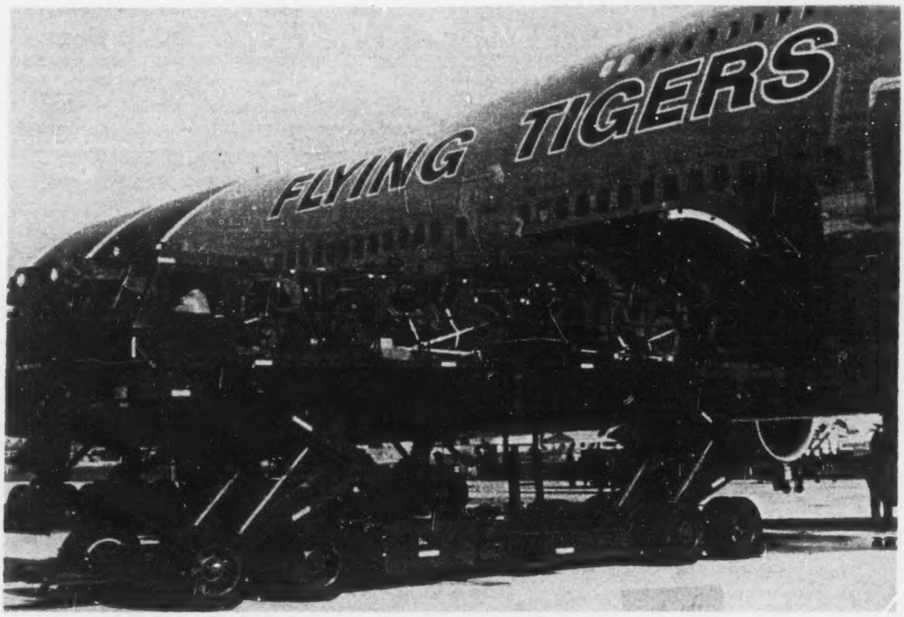
load the aircraft. This 747F then flew nonstop from Hickam Air Force Base in Hawaii to Osan Air Base in Korea—a distance of 3,944 nautical miles—and was unloaded by Air Force personnel in 1 hour and 18 minutes using Air Force loading equipment in their inventory.

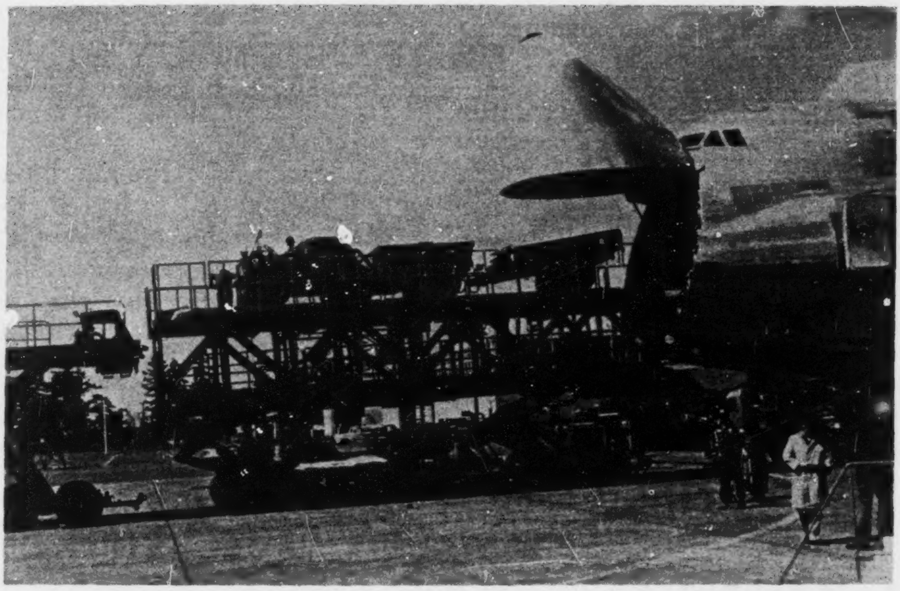
As a point of comparison, neither the C-141 nor C-5 could carry these loads nonstop from Hickam Air Force Base to Osan, Korea.



(VIEWGRAPH 14)

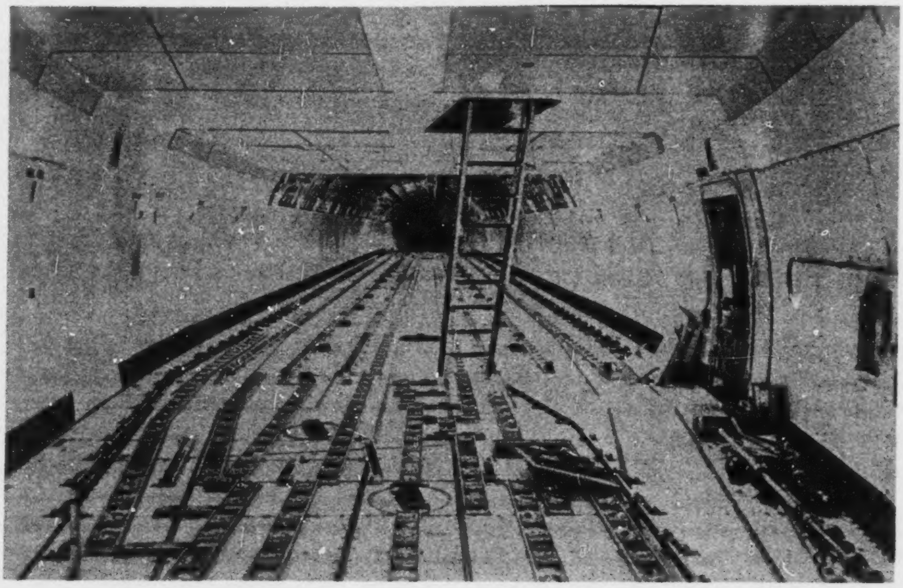
K-LOADER

In this exercise, the Air Force also used the "K-loader" elevator-type loading equipment which is in the Air Force inventory because it is required for loading and unloading C-5 and C-141 aircraft. This is a photo of one such elevator type "K-loader." The extended height of the "K-loader" is 2½ feet short of the main deck height of the 747 and KC-10 which is essentially the same height.



(VIEWGRAPH 15)

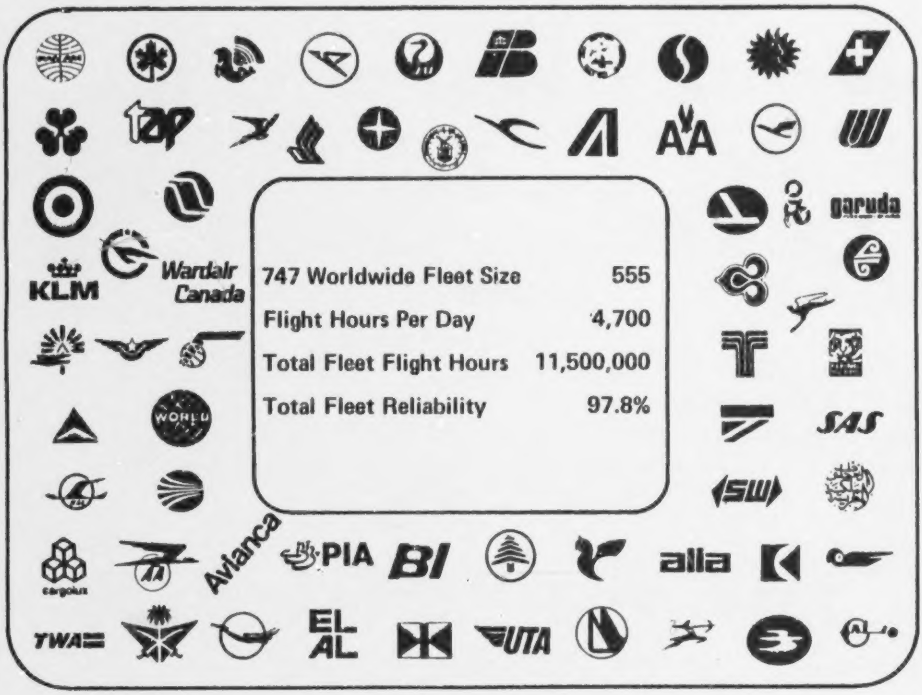
Additionally, there are documented reports of tests conducted by the Air Force of loading and unloading 747's which state that with minor modifications to existing Air Force K-loaders, which you saw, they can be used to load and unload the main deck of a 747. This photo shows one such modified K-loader.



(VIEWGRAPH 16)

Also, after the cargo is raised to the main deck of the 747 with the use of these same loaders already in the Air Force inventory, the cargo can then be precisely positioned automatically with the powered mechanized cargo-handling system shown here that can be operated by one man at a substantial savings of time and manpower.

Neither the C-5 or C-141 has such a mechanized cargo-handling system. So, it is our view that loading and unloading 747 freighters is not a major issue. Each day 160 of them are flying with freight on the main deck.



747 Worldwide Fleet Size	555
Flight Hours Per Day	4,700
Total Fleet Flight Hours	11,500,000
Total Fleet Reliability	97.8%

(VIEWGRAPH 17)

UNDERSTATED COSTS FOR 747

Now finally the critics of the 747 have stated that the Boeing Co. estimates of costs for the 747 are considerably understated. My only response to that criticism is that the Boeing Co. has offered a firm fixed-price proposal, which means just what it says for 747's in any quantity, subject only to an escalation clause indexed to inflation, as well as guaranteed not-to-exceed, 20-year operating and support costs. Behind this firm guarantee is the substantial balance sheet and integrity of the Boeing Co.

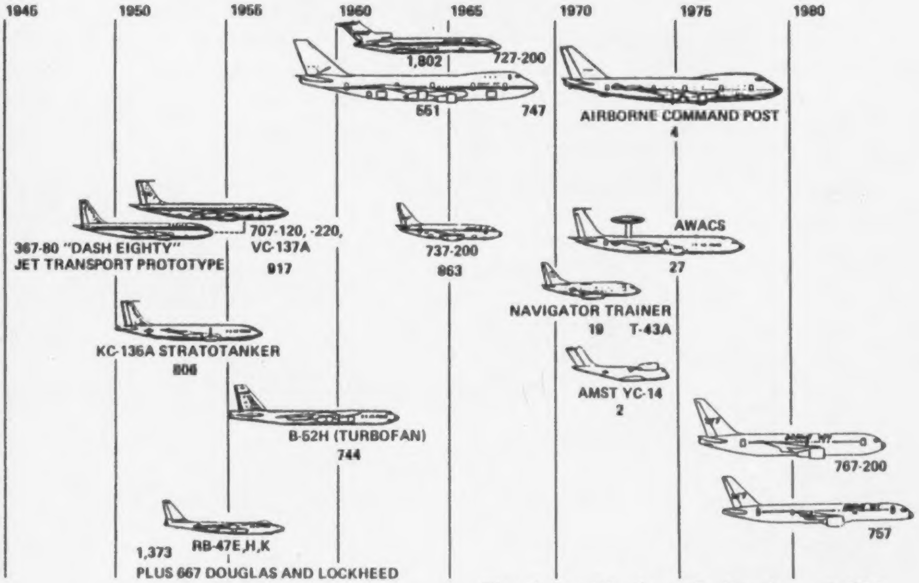
Finally, in the most important point of assuring the saving of billions of dollars of the taxpayers' money, Mr. Chairman, I will use the next and final two charts to conclude this presentation.

The data on this slide is the platform of experience from which the Boeing Co. has the confidence to make this unprecedented proposal

As shown on this chart through today 555 747's have been delivered to 66 different customers all over the free world. The 747 fleet is flying the world airlanes an average of 4,700 flight-hours a day. To date this 747 fleet has accumulated 11,500,000 flying hours.

Furthermore, from a dispatch reliability standpoint the 747 has an excellent 97.8 percent fleet reliability record.

Boeing Parade of Jet Airplane Progress



Total Jet Airplane Deliveries: 7,108
June 21, 1982

(VIEWGRAPH 18)

BOEING AIRCRAFT

In addition, the last viewgraph to the 747 program and supportive to the Boeing platform of experience and hence its confidence level for its airlift proposal is the substantial related experience with the other family of Boeing developed and manufactured aircraft. Including the 555 747's, Boeing has delivered 7,108 large, pure-jet, sweptwing aircraft including bombers, tankers and military and commercial transports.

It is from this extensive experience, Mr. Chairman, we have made this proposal—the 747 is a proven, cost-effective carrier of bulk and oversize cargo which is the real and immediate airlift need. It can provide this capability much sooner, with substantial saving of billions of dollars.

Thank you so much, Mr. Chairman, for hearing the Boeing story. We will be pleased to answer questions.

Senator **Stevens**. Thank you very much, Mr. Skeen. Unless there is objection, I am going to request that each member limit the questions for each witness to 5 minutes. We have three sets of witnesses this morning and I think we should do our best to get through it. Some of us have other meetings. I do at about 10:15. I am sure that there will be members who will want to stay beyond that.

CRAF PROPOSAL

Let me just ask one question, Mr. Skeen. There seems to be considerable resistance in the Air Force to the concept of the direct purchase that was authorized for the Senate. It is obvious in the lobbying documents that have come into our possession and it is also obvious from the comments that have been made.

Are there any realistic alternatives in the near term to get these 747's into the CRAF program or into some program whereby they might be leased to the Air Force for the near term?

Mr. **Skeen**. As I mentioned, Mr. Senator, we have submitted a draft for a CRAF proposal that, I believe, was acceptable to the airlines. That includes the structural modification and so forth.

Also what is involved here is as I stated, the penalty that the airlines believe that it would cost them to integrate these modifications and fly them around for the rest of their life. I believe, I see that as a viable alternative.

Your other point on leasing, I am just not qualified to say on the point.

Senator **Stevens**. Thank you.

Mr. Eagleton?

Senator **Eagleton**. I think I have just one question, Mr. Chairman.

747 WARRANTIES

What warranties would the Boeing Co. provide with respect to the performance of the 747 as described in your presentation?

Mr. **Skeen**. Well, we have two warranties on the new airplanes. We have 15,000 landings, and 10 years. Now, 10 years, by commercial standards is at least, perhaps, close to 3,000 hours a year, which would be 30,000 hours. But on the used airplanes, we have the warranties here of 10 years and 20,000 flight hours.

Senator **Stevens**. What does it cover? In other words, that is a term, the length of the guarantee. What does that cover?

Mr. **Skeen**. It covers the structure, and also, in the firm fixed price we will take care of all of the maintenance and replacements and so forth.

Senator **Stevens**. And the landing gear, too?

Mr. **Skeen**. Yes, sir.

Senator **Eagleton**. So it is a total warranty for the full performance of the aircraft with different lengths of terms for the new as opposed to the restructured?

Mr. **Skeen**. That is correct.

Senator **Eagleton**. That is all I have.

Senator **Stevens**. Mr. Garn?

Senator **Garn**. Thank you, Mr. Chairman.

Mr. Skeen. aren't most of the aircraft, available 747's, already in the CRAF program?

Mr. SKEEN. Are they already available?

Senator GARN. The majority of them are already in the CRAF program, are they not?

Mr. SKEEN. They are. But they do not have the cargo configuration.

Senator GARN. Why should the Government buy something we can already utilize in the event of emergency?

Mr. SKEEN. Why should you buy the C-5?

Senator GARN. They don't already exist. I am talking about buying something; at least 18 of the 31 747's already are available to the Government in case we need them.

Mr. SKEEN. The partial answer to that, Mr. Senator, is that these airplanes—I have 41 of them identified in surplus. They are available for sale. We have several indications that they will be sold to foreign Governments. If they are sold to foreign Governments they are no longer available to the United States for the CRAF program.

Senator GARN. I am talking about ones that have already had some modifications for the CRAF program. I doubt very much that those would be sold if we have already put money into the CRAF program for modification. But time is so brief on this——

Mr. SKEEN. I might say, there is only one that has been modified, one DC-10-10.

Senator GARN. Time is so brief, let me turn to another point which I think is the most telling point. Before I make that point, let me say that I have a little bit of experience in MAC. With 13 years and more than 4,000 hours of Military Airlift Command as an aircraft commander in MAC, I do know something about off-loading and on-loading aircraft.

The vast majority of flight time has been in Boeing aircraft. I have flown more in Boeing aircraft than all of the others put together, the C-797G, KC-135, and so on. I say that from the standpoint that I have no bias. I have thoroughly enjoyed the performance of the Boeing aircraft that I have flown over the years.

OFF-LOAD, ON-LOAD CAPABILITY

But in looking at off-load and on-load capability, I don't dispute the figures you have put up there, I have no basis to. I am sure the 747 program is cheaper. I am sure that the 747 can do what you say they can do. But your own pictures, I think, show the narrowing of that tunnel in the first place, of getting cargo in.

You can have your automated loading once you get it in and you have your K-lifters and all of that. I worked with all of those kinds of loading and off-loading equipment. But you are talking about peacetime situations. I have been in a lot of bases even in peacetime when the loaders didn't work.

Even back with odd C-797G's we could not on-load and off-load those airplanes without equipment. When we flew old shaky C-124's we didn't have to rely on ground equipment. You open the doors, put down the ramp. I have been on ramps when there are other aircraft sitting there that could not be unloaded because of the failures or problems or unavailability of equipment, when we unloaded old shaky because it could do it by itself, and you get into a wartime situation you would arrive at a base and maybe it has been attacked. Where are they? That 747 is going to sit there.

And I would like to have you answer how you load or off-load when a C-5 can come in there and unload itself because it was designed in that manner, primarily for cargo aircraft. I have seen that over and over again over a period of 20 years. I have seen that equipment break down.

When we had old shaky, as funny as it was, and noisy and had a built-in moderator, but lands and all of that, at least we could unload it and off-load it while other airplanes sat around and simply could not until the equipment was fixed or it was brought over from someplace else, from another airplane that was being unloaded.

That is the telling point for me, which is why I support the C-5. I don't think the 747 in wartime situations can do the job.

Mr. KEEN: I see you are firm in your beliefs. I happen to disagree on the basis of just one thing, 160 747's carrying freight around the world every day, the loaders are working, you have to always go to the probability—certainly you can set up a condition where the loaders wouldn't work, but they are all over the world and they are working. They are working fine.

Senator GARN. There is no doubt in a peacetime situation. We are talking about military airlift capability. I went through an ORI, every year. We tried to simulate those situations and inspectors put all kinds of problems, how fast you can get that airplane loaded off someplace else, come back and unload it. Nobody was dropping bombs, they were simulating dropping bombs. We had to stay combat qualified every year.

You are talking about a peacetime situation and I agree with you they will work just fine. But if we have a war someday, that is what we are talking about, outsize, oversize airlift capability in the event of an emergency.

Mr. SKEEN. The only parallel that I would make, certainly this is friendly conversation here, when the bell rang in the Egyptian-Israeli war the 747's, they really did the job. I will send you the GAO report on it. They answered the bell and carried more freight, each flight, than any plane going.

They are reliable and all they were doing was putting plywood on the floor, and taking it overseas. The airplane is reliable. When it is needed it can be there. That is quite a record and I will provide the committee the GAO report on the 747——

Senator GARN. I understand. But you look at Rhine Mein, Milden Hall, Dickum, most of the major MAC bases around, fine, you can go in there and get it in and out. But if they have been attacked?

Mr. SKEEN. That is not the mission we are talking about here, this is a strategic airlift mission. If they are attacked it is fair to say the runway itself would be attacked as would the C-5 and C-141 and C-130. But I understand your point and I respect you for it.

Senator GARN. Exactly. In our ORI's we used to simulate the bases had been attacked so you could go to a place not prepared, not attacked and unload a C-5, go to an alternate base where a 747, there would be no equipment waiting for it there whatsoever.

See, I am trying to say, fine, the military wants to prevent war and you hope you never have it. But if it occurs you want equipment that responds to war.

Mr. SKEEN. It appears under the secnario you are saying, you want a tactical airlifter, not strategic?

Senator GARN. No, no.

Senator STEVENS. Will the Senator yield?

If you are right, why do we need the 747's and CRAF at all? Why do we have a program to try to get them in CRAF and why is the answer that they will be all right if we can get them in CRAF? Why do we need them at all if your point is correct that they can't be unloaded?

As a practical matter, we are fighting to get them into CRAF?

Senator GARN. We are trying to add to the CRAF program.

Senator STEVENS. For the same purpose.

Senator GARN. To expand the airlift capabilities. Senator, there is a wide variety of airlift requirements at any one time, from tactical to strategic airlift requirements. Different missions, different types. You certainly expect to have a variety of airlift capability. You have C-141's now. And we were using C-797's for a long time, 797G's as supplements to the airlift command to haul cargo.

We were not hauling outsize cargo in a C-797G. I am talking about the instance of getting division size equipment and all of that transported overseas and the capability to off-load and on-load that in a wartime situation. You need this capability.

That is not saying we cannot use 747's in the CRAF program to haul other cargo, as a backup, and to different bases.

Mr. BOYCE. Mr. Garn, in the requirement that we analyzed, which is the requirement stated by the DOD, moving the RDF to the Middle East, you should be aware that the massiveness of the airlift operation is substantial. It would require 24 hours a day, 27 days in a row for an airplane to land and take off every 4 minutes to destination airfields.

That is a substantial airlift operation. Included in that operation are C-5's, C-141's, KC-10's, 747's, and the DC-10's from the civil reserve air fleet. This is the scenario that has been put forth by the Defense Department.

The C-5's and C-141's haul a lot of equipment that has to be offloaded by special equipment, by K-loaders. So really the situation in that environment is the same for the C-5 and 141 as it would be for the 747 as far as requiring ground support equipment. That is really fundamentally what our position is, that we don't believe the 747 has any different handling problems of this kind of move than the C-5 has.

Senator GARN. Well, my time is up, I am sure. But it is simply having watched them load and off-load, the difference in that and the size of the opening and compared to going in the side and turning equipment, is really a very different problem. I hope you will not gloss over that. I am not trying to knock the 747, I am talking about a particular set of conditions that the 747 cannot perform as well as the C-5.

Somebody could tell me we are never going to have a war; if they could tell me that, I would be tickled to death for a large number of other reasons and say, fine, we don't need the additional C-5 capability. But military is designed for wartime uses, not a day-to-day operation of 747's, with a 97.5, or whatever its capability. I am sure that is true. It is a fantastic airplane.

Senator **Stevens**. Senator Mattingly?

C-5 AVAILABILITY

Senator **Mattingly**. We've all seen many presentations by aircraft companies on military airlift so I guess we all have most of the information we need.

The only question I have is on the accuracy of your comment that there are now enough C-5's to do the job.

That is where I disagree. There is a well-documented requirement for additional C-5's.

Just to follow up on what Senator Garn said about combat situations, we have heard a lot about how well the 747 can perform, that all of these loaders and support equipment are out there for the Air Force to use. But, the fact is that last week, on June 19, the Army chartered a 747 to fly a National Guard unit from Puerto Rico directly to Fort Gordon, Ga., for a 2-week training exercise. However, they found that they could not offload the troops at Fort Gordon due to a lack of ground support equipment. These are troops, not cargo.

The Army then decided to fly the 747 to the Atlanta Airport, offload the troops and take buses to Fort Gordon. Total flight time from Puerto Rico to Atlanta is about 3 hours. A bus ride to Fort Gordon from Atlanta is over 10 hours. The other alternative was to fly an offload ladder and a fire truck large enough to handle a 747 into Fort Gordon. That would have required a C-5.

Isn't this precisely the type of difficulty that DOD and the military witnesses have been describing?

Mr. **Skeen**. I don't think so, Senator, for this reason. This is a strategic airlift mission that goes into well-equipped major airfields around the world, which in this case there were some bad findings there obviously. But, it seems quite clear to me that on any of the fields to which we understand the scenario, one that the RDF would be transported in as Mr. Boyce stated, it would be a MAC activity, there would be plenty of these type of equipments around because you are flying the KC-10's, it needs it. Much of the equipment that you fly on the C-5 and C-141 needs a loader, which I pointed out.

Senator **Mattingly**. The fact is that there wasn't offloading equipment for the 747 in Fort Gordon, Ga.

Mr. **Skeen**. Perhaps.

Senator **Mattingly**. Not perhaps; there was not. I see many other significant C-5 capabilities that the 747 does not have. Does the 747 have integral self-deploying loading ramps at both ends of the aircraft?

Mr. **Skeen**. The 747F has a nose door. It does not have a rear-end door.

Senator **Mattingly**. Does it have doors fore and aft that open up as large as the interior of the aircraft?

Mr. **Skeen**. Major cargo doors on the left side of the airplane, yes.

Senator **Mattingly**. Not as large as the interior of the aircraft?

Mr. **Boyce**. The dimensions of the doors are smaller than the dimensions of the interior cargo department, but the dimensions of the doors are certainly adequate to load all of the equipment we have stated it can carry.

Senator **Mattingly**. But it does not open up as large as the interior of the aircraft?

Mr. **Boyce**. That is correct.

Senator **Mattingly**. Does it have a strong cargo floor capable of loading large military combat equipment?

Mr. **Skeen**. Yes, oversize combat equipment, yes, sir.

Mr. **Boyce**. That is correct. Everything we have loaded in this analysis and everything we have shown we can carry in the 747 and can be flown in the 747.

Senator **Mattingly**. Can it land on unpaved surfaces?

Mr. **Boyce**. No, sir.

Senator **Mattingly**. Can it land on short runways?

Mr. **Boyce**. The landing field length of the 747 as well as the take-off field length is essentially 800 feet longer than a C-5, in any constant condition, 800 feet.

Senator **Mattingly**. Can it be serviced without special support equipment? I think that was answered by the experience in Fort Gordon, Ga.

I have other questions I would like to ask, but I know my time is up.

Senator **Stevens**. Thank you, Senator.

Senator Rudman.

FLEXIBILITY OF C-5

Senator **Rudman**. I have one comment and one question, Mr. Skeen.

What we are all grappling with, as I understand it, is if we don't care about money, and want total flexibility, we will buy the C-5's. That is obviously the more flexible airplane. You can't argue that. If money was no object, the C-5 has more total flexibility than the 747. Is that an accurate statement?

Mr. **Skeen**. I think if you would define flexibility and I don't want to be a lawyer about it, but on balance I would agree with you.

Senator **Rudman**. Fine. The question really comes down to whether or not the load management and problems that Senator Garn raises can be handled for $7, $8, or $9 billion, over 20 years. How much trouble will we go to and primarily can we do it? I think that is the issue.

Each of us will have to decide that for ourselves as we did 2 weeks ago. But I have a question for you. I am disturbed by one of your opening comments. That is, after your long relationship with the U.S. Air Force, you seem to indicate that you never really got a chance to tell your story at the highest levels of the Air Force and Defense Department. Is that accurate?

Mr. **Skeen**. That is correct.

Senator **Rudman**. Can you just briefly, in the limited time I have, tell me what you tried to accomplish in terms of presentation and what the response was?

Mr. **Skeen**. The response was simply this, we did not have—we were not able to get the appointments that we were asking for, to discuss our proposal. And just that simple.

Senator **Rudman**. Were you ever able to make a presentation to the Department of Defense, at any high level, such as you made here this morning?

Mr. **Skeen**. No, not to the Secretary of Defense, not to the Deputy, Secretary Carlucci or Mr. Orr, all of whom we requested.

Senator **Rudman**. I have to tell you I am in support of the defense program. But I think it is a pretty sad commentary that a company like Boeing or Lockheed or anyone that has had the record they have had serving our Government with equipment, can't even get the forum to present it.

Whether right or wrong, it seems to me our highest defense officials should at least make an effort to save a little money.

Senator **Stevens**. I would say the failure of someone over there to give to Boeing a couple hours has led to at least four or 5,000 hours for Senators and maybe the balance is right in their minds, but not in mine.

Senator **Rudman**. Maybe that is the right proportion.

Senator **Stevens**. We will now turn to the next witness.

Thank you very much.

We will now turn to Lockheed Corp., Mr. Ormsby, the president of Lockheed-Georgia Co.

Lockheed-Georgia Co.

STATEMENT OF MR. ROBERT B. ORMSBY, PRESIDENT, LOCKHEED-GEORGIA CO.

ACCOMPANIED BY CHARLES L. RAY, VICE PRESIDENT OF THE LOCKHEED-GEORGIA CO.

INTRODUCTION OF WITNESSES

Mr. **Ormsby**. Good morning, Mr. Chairman. We are pleased to be here before you today.

My name is Robert B. Ormsby and I am president of the Lockheed-Georgia Co.

I have with me Charles L. Ray, who is the vice president of Lockheed-Georgia Co.

We have provided a formal statement for the record. I would like now to present a shortened version of that material.

CARGO AIRCRAFT INVENTORY OF LOCKHEED

First of all, Lockheed designed and produced for the U.S. Air Force all of the military cargo airlift aircraft in the current active inventory, the C–130, the C–141, and the C–5, all of these airplanes have demonstrated their capability in crisis situations from Vietnam to Israel. Thus, with three decades of intensive experience in support of this Nation's military airlift needs, I am grateful for the opportunity to address your committee. National security is the issue, and like you, I want the facts available for your consideration.

MILITARY AIRLIFT NEED

The proper place to begin, of course, is with the assessment of the military need—its size, character, and timing. This assessment must come from the Nation's Defense Department professionals, not from industry spokesmen like me.

First of all, let me remind you of what has been said specifically about the military airlift need.

On May, 13,1982, Deputy Secretary of Defense Carlucci said:

> The DoD decision was made after examination of numerous alternatives, such as proposed procurement of lower-cost commercial wide-body cargo aircraft in lieu of C-5s. A reexamination of the data from the congressionally mandated mobility study has confirmed the validity of its conclusion that the shortfall of outsize cargo capability is our most immediate problem. This shortfall is at least 10 million ton-miles per day.

On March 24, 1982, Air Force Chief of Staff, Gen. Lew Allen said:

> Of particular concern is the inadequacy of airlift capable of carrying outsize cargo. This type cargo includes the bulky items—helicopters, tanks, infantry fighting vehicles, artillery, and so on—that comprise the bulk of the fire power of our ground forces.
>
> The congressionally mandated mobility study, reaffirmed this shortfall of intertheater airlift to include at least 10 million ton-miles per day of outsize capable airlift.

On April 12, 1982, Army Chief of Staff, Gen. Edward C. Meyer said:

> The most difficult of these airlift requirements is how to transport outsized cargo. Quite frankly, we would like all of our equipment to drive on and drive off the airplane with minimal pre- or post-shipment preparation.
>
> I would reiterate that the more ready to fight configuration possible during movement, the greater flexibility we have to respond across a full spectrum of scenarios.

OUTSIZE AIRLIFT STATUS

Reflecting on these statements, I hear them saying:

First, there is an immediate shortage of military outsize airlift capability, ranging from 28 to 80 percent, depending on the particular scenario of the congressionally mandated mobility study.

I should point out there are four scenarios in that congressionally mandated mobility study having differing requirements.

Second, increasing the capability to haul oversize cargo—that which might fit into a converted commercial transport—only increases the imbalance between outsize and oversize airlift capability, an imbalance that doesn't permit, what the military people call, unit integrity.

In plain language, without unit integrity, you have placed our fighting men on the field of combat without everything needed to do the job. You are asking the battlefield commander, "Which would you rather have, the howitzer or the shells; the missile launcher or the missiles?"

MILITARY NEEDS FOR C-5

Now, let me quote the military authorities on the specific need for the C-5.

On April 16, 1982, Gen. P. X. Kelley, Assistant Commandant of the Marine Corps, said:

> If there is anyone in this room who truly believes that we could move sufficient outsize equipment, in the paltry 77 C-5s that we have available in the military today, then I am wasting my breath. If you want me to provide credible closure capability, in my professional opinion 77 C-5s do not hack it.

On April 15, 1982, Gen. Bernard Rogers, Commander in Chief, U.S. European Command, said:

> If sufficient outsize airlift were not available for our planned deployments, we could fail to have balanced and adequate forces available at the proper place within critical time limits.

On March 24, 1982, Gen. R. H. Barrow, Commandant of the Marine Corps, said:

> The point I wish to emphasize is that the ability to carry outsized cargo is among our most critical deficiences. Therefore, the C-5 aircraft has my very strong support.

Secretary of Defense Caspar Weinberger, said on March 1, 1982:

> With respect to satisfaction of the requirement for at least 10 million ton-miles per day of outsize capability, the C-5 delivers the most capability, soonest, at less program cost than the C-17. Given the seriousness of our airlift shortfall, the C-5 is clearly the cost-attractive near-term option. Consequently, the objective is to increase airlift capability as quickly as possible.

Lt. Gen. Kelly H. Burke, U.S. Air Force Deputy Chief of Staff for Research, Development and Acquisition, said on April 16, 1982—speaking specifically about the C-5:

> We think those militarily designed features, ability to quickly load and unload, to operate in fields that are not well equipped, which you have not pre-planned for operation, allows flexibility and responsiveness. Importantly, those characteristics—flexibility and responsiveness—at the outset are available to the country only through aircraft that we buy and own ourselves. These are features that will not be found in any commercial airplane.

It appears to me that these statements not only reinforce all of the previous statements of the professionals about the airlift needs of the Nation, but they also make a compelling argument for the tool to do the job.

One existing airplane, and only one, the C-5, can do it. The C-5 was designed for that very task and has already demonstrated its capabilities. It is the right tool for the job.

Despite the clear position of the DOD on the need and the solution, some advocates outside of the DOD have proposed alternative approaches. The suggestions are, first, to procure commercial wide-bodied transports, or second, procure an all-new military design. Let me speak briefly to each of these alternatives.

BOEING 747

I am often asked about the Boeing 747. I never presume to speak as an authority on any aircraft built by another company, but I do know as common knowledge that:

(1) The 747 was designed as a commercial passenger airplane, not for military cargo in a military environment.

(2) The 747 was evaluated by the DOD and rejected in favor of the C–5.

(3) If there is an airlift role for the 747, it can be more economically acquired via the Civil Reserve Air Fleet program.

Lockheed, just like Boeing and McDonnell-Douglas, submitted proposals last year for the all-new C–X. All of us knew from the outset, from a number of official sources, that our offers would be evaluated against existing designs.

On June 5, 1980, Secretary of Defense Harold Brown said to the Senate Armed Services Committee:

> We have two broad alternatives to remedy this (inter-theater airlift) shortfall by providing additional outsized cargo-carrying capability: One is to buy an aircraft of new design; the other is to buy an existing or modified version of existing aircraft."

Similarly, in his press release of August 28, 1981, Secretary of the Air Force Verne Orr stated:

> The selection of McDonnell-Douglas as the prime contractor does not represent an Air Force commitment to build the C–X. Currently the Air Force is evaluating several mixes of outsize and oversize, bulk-capable aircraft to correct the current shortfall in airlift capability.

The shortcomings of the all-new design, whether it is Lockheed's or some other company's is the time required to get the airplane into the hands of our fighting forces, and its cost. Even if affordable, you simply cannot get the required all-new capability in the field as soon as it is needed.

Thus, alternatives suggested won't do the job. The 747 doesn't meet the military requirements, regardless of its schedule or cost, and the all-new design exists only on paper, is more expensive, and is not available soon enough.

RECAP OF C–5 PROGRAM

Let me briefly recap the C–5 program. We have submitted a fixed-price offer to produce new C–5's which has since been thoroughly evaluated by the Air Force and the Secretary of Defense. The C–5 is fully designed, developed, and in operation by the Air Force, with the trained personnel, spares, facilities, and data required to place new additional units into immediate service. The production tools already exist, and over 50 percent of the airplane is already in production. It is a proven product and a low-risk program.

The Department of Defense and Lockheed are not considering anything like the original C–5A contract. We were then launching an all-new design, with a high degree of design and production concurrency, under a now discredited total package procurement concept. Today we can proceed quickly with the reproduction of a fully designed and developed, field-proven, and improved C–5.

Secretary Orr said it best in a memorandum for the Deputy Secretary of Defense, February 5, 1982:

> In crisis after crisis, civil and military, from Vietnam and the Israel "Six-Day War," to earthquakes in Turkey, to famine in Africa, to snow rescue in the Northeastern United States, the C–5A has delivered a wide variety of essential goods in place, on time. For example, during the 1973 Israeli War, the 894 C–5 sorties were flown with a 96.4-percent reliability rate.

Several design features have been deleted to save costs. Avionics upgrade and other modifications will reduce maintenance manhours per flying hour, and improve reliability.

The C-5 is a well-known airplane and has been successfully flown for about 12 years. The low-risk nature of this program is further highlighted by the willingness of the contractor to accept a fixed-price contract.

LOCKHEED PERFORMANCE EXPECTATIONS

What kind of Lockheed performance can you expect?

Well, over the last 5 years, the Lockheed-Georgia Co. has delivered billions of dollars worth of airlift aircraft and related products, and over three/fourths of that work was performed under fixed-price contracts, all within budget.

The last delivery in the C-141B stretch modification program, which increases the productivity of that aircraft by 30 percent and provides it with air refueling capability, will take place just 5 days from today, ahead of schedule and $25 million under budget.

We are producing the C-130 Hercules airlifter at three per month. Over 99.8 percent of the 1,600 aircraft were delivered on or ahead of schedule.

WING MODIFICATION PROGRAM

The design phase of the C-5A Wing Modification program was completed on schedule and more than 10 percent under budget. The fatigue test was completed 1 year ahead of schedule and under budget for the required two lifetimes, or 60,000 simulated flight-hours, subsequently extended beyond three lifetimes to 95,000 test hours.

The flight test aircraft was delivered to the Air Force in January 1981 and has accumulated over 1,500 flying hours with no structural problems. Three aircraft are already in the modification process.

I submit that if the C-5 were not doing a good job for the Air Force, or if any other airplane could do the C-5's job, the Air Force would not have invested in a program to extend its life into the next century.

In summary, I would recall that the issue before us is national defense, and the foremost military authorities in the U.S. Government have clearly stated the need for additional strategic outsize military airlift.

These same authorities have stated that, in terms of military performance, cost, and schedule, the C-5 program they propose is the most cost-effective solution to this need.

ALTERNATIVES TO C-5

Alternatives to the proposed C-5 program have been rigorously evaluated by the Defense Department and rejected. The Boeing commercial 747 is not acceptable because it cannot do the job, regardless of its cost or schedule. The C-X exists only on paper, costs more, and cannot be available nearly soon enough to meet the need.

Major factors in the Defense Department's choice of the C-5 are (1) the proven capability of the C-5; (2) Lockheed's excellent quality, cost, and schedule performance on many other defense contracts over the last 10 years; and (3) Lockheed's fixed price proposal and guarantees to produce new C-5 aircraft.

Now I have a 5-minute film before presenting myself for your questions.

[The statement of Mr. Robert B. Ormsby follows:]

PREPARED STATEMENT OF ROBERT B. ORMSBY
PRESIDENT
LOCKHEED-GEORGIA COMPANY

Good morning, Mr. Chairman and Members of the Committee. I am pleased to appear before you today.

My name is Robert B. Ormsby, and I am President of the Lockheed-Georgia Company. I have with me Charles L. Ray, who is a Vice President of the Lockheed-Georgia Company.

Lockheed designed and produced for the U.S. Air Force all of the military cargo airlift aircraft in the current active inventory... the C-130, the C-141, and the C-5... all of which have demonstrated their capability in crisis situations from Vietnam to Israel. Thus, with three decades of intensive experience in support of this Nation's military airlift needs, I am grateful for the opportunity to address your Committee. National security is the issue, and like you, I want the facts available for your consideration.

U. S. Military Airlift Requirement

The proper place to begin, of course, is with the assessment of the military need... its size, character, and timing. This assessment must come from the Nation's Defense Department professionals, not from industry spokesmen like me. I would therefore like to recall what those professionals say today about U.S. military airlift needs.

Deputy Secretary of Defense Carlucci, on May 13, 1982:

> "The DoD decision was made after examination of numerous alternatives, such as proposed procurement of lower-cost commercial wide-body cargo aircraft in lieu of C-5's. A reexamination of data from the

Congressionally Mandated Mobility Study has confirmed the validity of its conclusion that the shortfall of outsize cargo capability is our most immediate problem. This shortfall is at least ten million ton-miles per day. .... Our decision to buy C-5B aircraft and additional KC-10's is in the best interest of national defense."

Air Force Chief of Staff, General Lew Allen, on March 24, 1982:

"The Department of Defense through seventeen major studies over the past several years, has confirmed that we have a severe shortage of military airlift. Of particular concern is the inadequacy of airlift capable of carrying outsize cargo. This type cargo includes the bulky items —— helicopters, tanks, infantry fighting vehicles, artillery, and so on, — that comprise the bulk of the fire power of our ground forces.

"The most recent and authoritative study of this question, the Congressionally Mandated Mobility Study, reaffirmed this shortfall ..... of intertheater airlift to include at least 10 million ton-miles per day of outsize capable airlift."

Army Chief of Staff, General Edward C. Meyer, on April 12, 1982:

"The most difficult of these airlift requirements is how to transport outsized cargo. .... Quite frankly, we would like all of our equipment to drive on and drive off the airplane with minimal pre- or post-shipment preparation.

> "I would reiterate that the more ready to fight configuration possible during movement, the greater flexibility we have to respond across a full spectrum of scenarios."

Reflecting on these statements by U.S. defense professionals, this is what I hear them saying:

- First, there is an immediate shortage of military outsize airlift capability, ranging from 28 to 80 per cent, depending on the particular scenario of the Congressionally Mandated Mobility Study.
- Next, increasing the capability to haul oversize cargo ..... that which might fit into a converted commercial transport ..... only increases the imbalance between outsize and oversize airlift capability, an imbalance that doesn't permit what the military people call unit integrity.

In plain language, without unit integrity, you have placed our fighting men on the field of combat without everything needed to do the job. You are asking the battlefield commander, "Which would you rather have, the howitzer or the shells; the missile launcher or the missiles?"

Now, let me quote the military authorities on the specific need for the C-5.

Assistant Commandant of Marine Corps, General P. X. Kelley, on April 16, 1982:

> "If there is anyone in this room who truly believes that we could move sufficient outsize equipment ... in the paltry 77 C-5s that we have available in the military today, then I am wasting my breath ... If you

> want me to provide credible closure capability, in my professional opinion 77 C-5s do not hack it."

Commander-in-Chief, U. S. European Command, General Bernard Rogers, on April 15, 1982:

> "If sufficient outsize airlift were not available for our planned deployments, we could fail to have balanced and adequate forces available at the proper place within critical time limits .... Our inability to meet this total need puts at risk our forward deployed forces."

Commandant of Marine Corps, General R. H. Barrow, on March 24, 1982:

> "The point I wish to emphasize is that the ability to carry outsized cargo is among our most critical deficiencies. The C-5 aircraft, therefore, has my very strong support."

Secretary of Defense, Caspar Weinberger, on March 1, 1982:

> "With respect to satisfaction of the requirement for at least 10 million ton miles per day of outsize capability, the C-5 delivers the most capability, soonest, at less program cost than the C-17. Given the seriousness of our airlift shortfall, the C-5 is clearly the most attractive near term option. .... The overriding consideration in the choice between the C-5 and C-17 is the conclusion -- documented in the Congressionally Mandated Mobility Study and numerous other studies over many years -- that a significant airlift shortfall exists now! Consequently, the objective is to increase airlift capability as quickly

> as possible. .... Our pressing near-term inter-theatre airlift shortfall will be satisfied by the combined KC-10/C-5 program."

Lt. Gen. Kelly H. Burke, USAF DCS/Research, Development & Acquisition, on April 16, 1982:

> Speaking specifically about the C-5, "We think those militarily designed features, ability to quickly load and unload, to operate in fields that are not well equipped, which you have not pre-planned for operation, allows flexibility and responsiveness. Importantly those characteristics, flexibility and responsiveness, at the outset are available to the country only through aircraft that we buy and own ourselves. These are features that will not be found in any commercial airplane. If we want that we have to buy it."

It appears to me that these statements not only reinforce all of the previous statements of the professionals about the airlift needs of the Nation, but they also make a compelling argument for the tool to do the job:

- One existing airplane, and only one ... the C-5 ... can do it. The C-5 was designed for that very task and has already demonstrated its capabilities. It's the right tool for the job.

Suggested Alternatives

Despite the clear position of the DoD on the need and the solution, some advocates outside of the DoD have proposed alternative approaches. Keep in mind that these suggestions did not come from the DoD. The suggestions are, first, to procure commercial wide-bodied transports, or secondly, procure an all-new military design. Let me speak briefly to each of these alternatives.

- Wide-bodied Commercial Transports

  It's an axiom of American businessmen to know one's competition, so I'm often asked about the Boeing 747. In fact, I never presume to speak as an authority about the 747 or any other aircraft built by another company, but I do know this much, because the information is common knowledge: (1) The 747 was designed as a commercial passenger airplane; it was not designed to transport military cargo in a military environment. (2) The 747 was evaluated by the DoD and rejected in favor of the C-5. (3) If there is a role for the 747 to augment the Nation's military airlift force, the 747 capability can be much more economically acquired via the Civil Reserve Air Fleet program.

- All-new Military Airlift Designs

  Lockheed, just like Boeing and McDonnell-Douglas, submitted proposals last year for an all-new military airlifter called the C-X. All of us knew at the outset, from a number of official sources, that our offers would be evaluated against existing designs .

  During testimony before the Senate Armed Services Committee on June 5, 1980, Secretary of Defense Harold Brown said:

  > "We have two broad alternatives to remedy this (intertheater airlift) shortfall by providing additional outsized cargo carrying capability: one is to buy an aircraft of new design; the other is to buy an existing or modified version of existing aircraft."

Similarly, in a Memorandum to the Secretary of the Air Force from Deputy Secretary of Defense W. Graham Claytor, dated November 28, 1980, Subject: Mission Element Need Statement for C-X, the following statement was made:

> "The Air Force will brief the principals on the decision as to whether to buy a derivative aircraft or new aircraft, or a mix thereof, for my approval prior to making or announcing source selection. Alternatives to be identified and evaluated are to include: minimum modification of existing aircraft, derivation of existing aircraft and all-new design."

Finally, in his press release of August 28, 1981, Secretary of the Air Force Verne Orr stated:

> "The selection of McDonnell Douglas as the prime contractor does not represent an Air Force commitment to build the C-X. Currently the Air Force is evaluating several mixes of outsize and oversize, bulk-capable aircraft to correct the current shortfall in airlift capability. The specific aircraft or aircraft mix to be acquired will be specified in the approved acquisition strategy."

The shortcomings of the all-new design, whether it is Lockheed's or some other company's, is the time required to get the airplane into the hands of our fighting forces, and its cost. Even if affordable, you simply cannot get the required all-new capability in the field as soon as it is needed.

The alternatives that have been suggested won't do the job; that is:

- The 747 doesn't meet the military requirements, regardless of its cost or schedule, and
- The all-new design exists only on paper, is more expensive, and is not available soon enough.

The C-5

Let me briefly recap the C-5 program.

We have submitted a fixed price offer to produce new C-5's. This offer has been thoroughly evaluated by the Air Force and the Secretary of Defense. The C-5 is fully designed, developed, and in operation by the Air Force, with the trained personnel, spares, facilities, and data required to place additional units into immediate service as soon as they come out of our factory. The production tools already exist, and over 50 percent of the airplane is already in production. It's a proven product and a low-risk program.

Your Committee should be aware of the fact that the Department of Defense and Lockheed today are not considering anything like the original C-5A contract of the 1960's. Back then, we were launching an all-new design, with a high degree of concurrency between design and production, under a now discredited total package procurement contract concept. Today, building on the strength of that experience, we can proceed quickly with the reproduction of a fully designed and developed, field proven, and improved C-5.

I think the performance you can expect from the new production C-5's was best summarized by Secretary Orr in a Memorandum for the Deputy Secretary of Defense, February 5, 1982. Secretary Orr said:

> "In crisis after crisis, civil and military, from Vietnam and the Israel "Six Day War", to earthquakes in Turkey, to famine in Africa, to snow rescue in the Northeastern United States, the C-5A has delivered a wide variety of essential goods in place, on time. For example, during the '73 Israeli War, the 894 C-5 sorties were flown with a 96.4 per cent reliability rate.
>
> "Moreover, as discussed under engineering changes to be made in the C-5B, several design features have been deleted to save costs. ..... In addition, avionics upgrade and other modifications will reduce maintenance manhours per flying hour, and improve reliability over the C-5A experience.
>
> "The C-5 is considered a low risk program for several reasons. The C-5 is a well-known airplane and has been successfully flown for about 12 years. .... The low risk nature of this program is further highlighted by the willingness of the contractor to accept a fixed price contract."

What kind of Lockheed performance can you expect?

Over the last five years, the Lockheed-Georgia Company has delivered billions of dollars worth of airlift aircraft and related products, and over three-fourths of that work was performed under fixed price contracts, all within budget. We are presently in the final stages of the C-141B Stretch Modification Program, which increases the productivity of that aircraft by 30 per cent and provides it with air refueling capability. The last delivery, the 270th aircraft, will take place just five days from today, ahead of schedule and 25 million dollars under budget.

We are also producing the C-130 Hercules airlifter for the U.S. Government and friendly foreign nations around the world. The production rate is currently three per month, and I should mention that we have produced over 1600 of these aircraft with over 99.8 per cent of them delivered on or ahead of schedule.

We have completed the design and test phases of the C-5A wing modification program. The design phase was completed on schedule and more than 10 per cent under budget. The test phase, which included both fatigue and flight test, was completed ahead of schedule and under budget with the fatigue test of the required two lifetimes, or 60,000 simulated flight hours, completed one year ahead of schedule. The fatigue testing has subsequently continued over three lifetimes (95,000 hours) with no structural problems.

The flight test aircraft was delivered to the Air Force in January 1981 and has accumulated over 1500 flying hours with no structural problems developing in actual flight operations. We are well into the fabrication and installation phases of this program, with three aircraft already in process, and expect to continue our good cost and schedule performance.

Speaking of the C-5 wing life extension program, I submit that if the C-5 weren't doing a good job for the Air Force, or if any other airplane could do the C-5's job, the Air Force would not have invested in a program to extend its life into the next century.

Summary

In summary, I would recall that the issue before us is national defense, and the foremost military authorities in the U.S. Government have stated clearly the need for additional strategic outsize military airlift.

These same authorities have stated that, in terms of military performance, cost, and schedule, the C-5 program they propose is the most cost effective solution to this need.

Alternatives to the proposed C-5 program have been rigorously evaluated by the Defense Department and rejected. The Boeing commercial 747 is not acceptable because it cannot do the job, regardless of its cost or schedule. The C-X exists only on paper, costs more, and cannot be available nearly soon enough to meet the need.

Major factors in the Defense Department's choice of the C-5 are (1) the proven capability of the C-5; (2) Lockheed's excellent quality, cost, and schedule performance on many other defense contracts over the last ten years; and (3) Lockheed's fixed price proposal and guarantees to produce new C-5 aircraft.

In order for the Committee to see exactly what kind of aircraft and military equipment you are evaluating, I would like to show a five-minute film before presenting myself for your questions.

FIRM FIXED PRICE FOR C-5

Senator STEVENS. Thank you very much, Mr. Ormsby.

I want to say I have flown the C-5, I have flown in it, and I think it is a fine airplane. And for myself, you know, I recognize that competitiveness of this industry and hope that all concerned realize that you will all be back before this committee again next year and the next year and the next year. So I hope we can maintain the relationship that we have to maintain.

I have some brief questions. Did your proposal to the Air Force—and from my point of view, it is an interim proposal until we get the C-17—include a firm fixed price for your C-5?

Mr. ORMSBY. It did.

Senator STEVENS. Was that to apply to any quantity order, from 1 to 50?

Mr. ORMSBY. We gave two quotes, one for 44 airplanes. In later analysis, the Air Force said that 50 airplanes would be required for the job so we then turned in a quota for 50.

AIRFRAME AND WING GUARANTEE

Senator STEVENS. Was there some sort of a guarantee on the airframe and the wing?

Mr. ORMSBY. Yes, sir.

Senator STEVENS. What was that guarantee?

Mr. ORMSBY. The wing is guaranteed in accordance with the current Defense Acquisition Regulations, the so-called DARS, which is for 1 year. We extended that warranty, more typical of commercial practice, and it extends to a total of 5 years.

IMPACT OF C-5 ACQUISITION ON CRAF PROGRAM

Senator **Stevens**. Those of us who are worried about this question of the cost of the airlift expansion, and I think I am one of those, are a little worried about the impact of this acquisition on the CRAF program. None of our C-5's are in private ownership: is that right?

Mr. **Ormsby**. That is right. They are designed for the military job.

Senator **Stevens**. There is no proposal to put them into private ownership?

Mr. **Ormsby**. That is correct.

Senator **Stevens**. So if we buy the C-5's and the C-17's, we will be committing the Government to a totally Government-owned airlift capability for the RDF?

Mr. **Ormsby**. I don't believe that is correct. I think any plans for mobility deployment for the next 10 to 20 years include considerable numbers of CRAF aircraft.

Senator **Stevens**. By definition the 747 has to fly in the RDF along with your planes?

Mr. **Ormsby**. That is the current plan. The CRAF provides a considerable airlift force today.

Senator **Stevens**. Could you tell me, did your company print these that are being distributed?

Mr. **Ormsby**. Yes.

Senator **Stevens**. It would be helpful if you put your company name on them. Because I have had some questions raised about where they came from. Under those circumstances the 747's will be part of the RDF. What is the use of these right now? I mean they imply that the 747's cannot do a military job?

Mr. **Ormsby**. Let me address that. The study, as I referred to it, shows the shortages in outsize cargo and that is the portion we are addressing. The critical question that has been raised, as we understand it, is whether there is an outsize shortfall. And those documents are designed to highlight the fact that there is such a shortage.

I might point out that of the four scenarios, the NATO reenforcement is the most critical and has the greatest outsize requirement. And so the shortfall is real, it exists today and as I understand it that is the critical issue.

Once that is established, and only one airplane can do it, we felt that was germane to the issue at hand.

C-17 PROGRAM

Senator **Stevens**. Well, I have to question that, too. We had a competition in the C-X and the 747 and the C-5 were both rejected for the C-17, isn't that correct?

Mr. **Ormsby**. That is correct.

Senator **Stevens**. Last year Congress postponed initiation of the C-17 program. In my opinion that was misread by the Department of Defense. In any event, after congressional action last year there was a change and the C-17 was postponed further.

The IOC postponed 5 years, I think we will get into that later today. But instead there is an interim program to acquire 50 C-5B's. And later 64 C-17's as compared to the 128 C-17's originally.

Now the problem with us is that at least from the point of view of this committee, in my opinion, is cost. The cost of that program is greater than the cost of turning to an interim concept of using your C-5's and C-141's that are already in the DOD inventory and augmenting them by the available civilian aircraft in the near term and proceeding as rapidly as possible to develop the C-17 for the long term.

Now the cost of that alternative is considerably less than the alternative that you support. Now I am compelled to ask you in terms of this program, why should we now turn back to the aircraft that was rejected in the C-17 competition?

Mr. ORMSBY. Let me suggest first of all that question might be better addressed to the DOD. I don't presume to speak to their decision process, but much has been made public on this so let me repeat what I think I have heard.

First of all, I guess it was our understanding that the will of Congress, the sense of Congress the last 2 years, was that the new aircraft design should be compared to existing commercial widebodies and existing in-inventory aircraft. I believe that was specifically in the language.

C-5 AS INTERIM SOLUTION

Senator STEVENS. We were talking about off-the-shelf items that were in commercial use. Yours by definition didn't fit that?

Mr. ORMSBY. Well, we would have to look at the language. I guess I read it somewhat differently. I think a number of other people did, too.

Some of your earlier comments addressed the C-5 as being an interim solution. I do not believe the current DOD plans look at it that way. But here again I suggest you address your questions to them. I believe their plans call for the use of the C-5, existing fleet, plus any additional aircraft well into the next century.

The reason they came down with that decision, as I understand it, in looking at the current need, the shortfall in outsize as attested to by the Marine Corps and by the Army, the new airplane could not provide that capability soon enough. As one gentleman put it, if we could get our opponents to declare a truce for 7 or 8 years it would be a good way to go. We can't count on that.

I believe there are plans to look at the C-5 as a near term acquisition to be followed by the development of the C-17 or a new airplane to fill other shortages in the airlift spectrum.

So I don't think that the DOD plan, as I read it, is inconsistent. They heard the Congress concern about the cost of a new airplane, examined their immediate need and with that process came up with the current plan which as I say is additional C-5's now, followed by a later procurement of a new airplane.

Senator STEVENS. Thank you very much.

Senator Garn.

Senator GARN. I have no questions.

Senator STEVENS. Senator Mattingly?

Senator **Mattingly**. I have one question for you. The chairman made the comment that everybody is going to be back before the committee several times in the future. I hope it is not on this issue.

Senator **Stevens**. I am saying we will be procuring airlift capability for years to come and this is not the last time we will address this issue.

Senator **Mattingly**. The question is what aircraft can deliver outsize combat equipment. The answer is the C-5.

Is it true that Lockheed's C-5 proposal has been reviewed by the Air Force? And that the proposed price and delivery schedules have been found to be reasonable?

Mr. **Ormsby**. That is correct. Let me add another point to that. The numbers you see quoted for the Lockheed C-5 program are not the numbers that we submitted. The Department of Defense added to them for items that the contractor cannot properly allocate.

So, yes, our proposal has been examined in detail and additional costs that are incurred by the Department of Defense are, in fact, added to the numbers we have turned in. We have closed out any outstanding items or questions about what it is we submitted.

Senator **Mattingly**. Those are all the questions I have.

Senator **Stevens**. Senator Rudman?

Senator **Rudman**. I have just one question, Mr. Ormsby.

I have flown also in the C-5. It is a first-grade airplane. I don't think anyone is arguing with that. We are coming down to a management argument having to do with savings.

Have you seen the statistics—I think they are computer prepared—that will take a typical brigade or division, break out the amount of cargo that is outsized and build a transportation scenario that says that in a deployment, the Air Force would move so many C-5's, so many 747's and so many C-141's, and so forth, to a composite loading and fly that equipment out to a certain number. Have you seen that type of equipment?

Mr. **Ormsby**. We all have that, of course, sir.

Senator **Rudman**. Is there anything unreasonable about that?

Mr. **Ormsby**. It depends upon the inputs. Boeing did not submit their data to us for comment, as you might appreciate. Let me suggest in looking at their data, I think there is a disagreement here in philosophy. One way to do these kinds of loads is to assume an average kind of load.

In commercial practice that is fairly good because cargo densities are pretty homogeneous. You don't find big excursions as you do in the military, you consider the armor versus bulk and so on.

It is our opinion that the analysis which shows that the C-5 fleet is adequate, makes the error of assuming it carries an average payload, when in fact, in the early days of a conflict, it does not because in the early days of a deployment, things like helicopters must of necessity go first.

So instead of carrying anything like a payload of 200,000 pounds it is hauling payloads of about 80,000 pounds which means more sorties are needed and that is part of the reason why the current C-5 fleet size is inadequate for the job.

Senator **Rudman**. But part of this plan would call for deployment of a certain number of C-5's to the airfield where that equipment is assembled, enough C-5's to carry all of that outsize cargo even though you have a light load density and enough 747's and C-141's for everything else. Then the whole unit would be moved overseas in *x* number of sorties, using the C-5's which we have.

Now if we didn't have any C-5's, obviously, that would be a self-defeating proposal. But we do have C-5's. I think that is the important point many of us are looking at. Certainly none of us would want to vote for a proposal that would mean the Army would have to leave its outsize equipment home.

But that is not the fact, Mr. Ormsby. We have a lot of C-5's. We can move the C-5's onto a military base, move them and their outsize equipment overseas, albeit with admittedly low-density cargoes in terms of weight, but then we could use the 747's and C-141's.

Mr. **Ormsby**. I didn't make myself clear. With the fixed fleet we have today, there are not enough C-5 sorties. You can't fly enough flights per day to keep that kind of material arriving in phase with the troops and bulk carried by 747's and other aircraft. So, the reason is the one you have just said, because you are hauling low-density items oftentimes, not an average payload. That means more C-5 sorties are required and that is why the fleet is actually inadequate to do the job.

If one looks at it on a gross tons to be moved basis and assumes that every airplane hauls a certain payload, the arithmetic for the least demanding scenario, scenario one, works out. But remember there are four scenarios. And the scenario to reenforce NATO, which many people feel is the most critical, has an outsize requirement over three times what it is for scenario one which has been discussed this morning. It is three times what has been discussed at this point.

Senator **Rudman**. Thank you.

Senator **Stevens**. Senator Eagleton?

Senator **Eagleton**. Thank you, Mr. Chairman.

C-5 WING MODIFICATION

Would it be fair to say the single most controversial and contentious aspect of the C-5 was the wings and the wing modifications?

Mr. **Ormsby**. I think that is a fair statement, sir.

Senator Eagleton. The General Accounting Office issued a report on March 22, 1982, entitled "C-5A Wing Modification, a Case Study," illustrating problems in the defense weapons acquisition process. And I will read an excerpt from that report and ask for your comment:

> Are wing modification warranties adequate to protect the Government's interest? Lockeed was unwilling to warrant the C-5A service life of a modification. Instead Lockheed and the Air Force negotiated limited warranties on the fatigue and flight test articles.

Then it further describes some of the limited warranties.

Why was it and why is it that Lockeed is unwilling to warrant the C-5A's service life after modifications?

Mr. **Ormsby**. I don't agree with the unwilling. Let me review the situation. I think all of us who buy consumer products are aware that warranties cost something. It appears in the price of the products. Cost is a function of risk, but the cost of all warranties, typically, consumers pay for.

I think the fact that the Air Force did not want to develop a price increment for that reflects their confidence in the wing. They had participaed with us for a number of years on redesign of that wing. I don't think I am putting words in DOD officials' mouths to say they were very confident, based on the design and the component testing at that point and simply felt a warranty was inappropriate.

When you buy an automobile or other consumer product we are often offered an extended warranty. Many times we don't take it. I think the Air Force felt it would not be in their best interest to do that.

POST-WING MODIFICATION WARRANTY OF C–5

Senator EAGLETON. If we assume from that answer that you are confident as to the efficiency or the efficacies of the wing modification process, and if the Air Force is as well confident that whatever the defects were they have now been remedied, why wouldn't it be the most prudent thing to have a warranty in connection with it, since it was the greatest single source of concern from the outset with the C–5?

Mr. ORMSBY. I think the answer to that is a warranty is not needed since the wing was designed to give 60,000 test hours and we are now past 95,000 hours with no difficulty, no structural problems. So the point has been made that the wing is perfectly satisfactory.

Senator EAGLETON. Why would it be of great potential cost to your company to give a warranty if in fact you and the Air Force are so confident as to the success of that which has been done?

Mr. ORMSBY. In testing anything and judging its use you have to assume some kind of base. Most of us, if we read the warranties carefully, the warranty is good provided that, and there are a whole bunch of details. We have to take it to the dealer every 30 days, it should not be used to pull trailers, et cetera, et cetera, et cetera.

So the cost of keeping track of the use of the airplanes has to be factored in. The fact that the Air Force, as we testified earlier, frequently use the airplanes in ways you can't foresee, make the provision of commercial warranties in a military situation very difficult to quantify.

All I can say is we agreed as to the use of the airplane most likely to set up test profiles and the wing has met that. It will probably go beyond 95,000 hours, which is more than three lifetimes.

Senator EAGLETON. Let me move on to another subject.

Senator Mattingly specified that certain functions in contrasting the C–5 with the 747 and I would like to ask you three questions in comparing the flexibility or greater utility of the C–5 as contrasted with the C–17.

Is it not true that the C–17, vis-a-vis the C–5, would have a larger cargo capability for outsize cargo?

Mr. ORMSBY. I do not believe so. The payload on the C–5B at two and a quarter G is 271,000 pounds.

Senator EAGLETON. Capability for outsize cargo?

Mr. **Ormsby**. Yes, sir.

Senator **Eagleton**. The C-17 does not have a greater capability?

Mr. **Ormsby**. I don't believe so. In the C-5 today, you can carry two M1 main battle tanks tied down and equipped for combat. They weigh about 130,000 pounds apiece, times two is 260,000 pounds. It is my belief that the C-17 is not capable of that.

Senator **Eagleton**. How about the C-17 as compared to the C-5 landing on a smaller, more austere runway?

Mr. **Ormsby**. If you confine it to the hard surface, the C-17 is smaller, it has less capability. We might note, however, that the C-5, if allowed to taxi off the runway, which you saw in the film, has certain capabilities the C-17 does not have, because the wheel loading on the C-5 is less than the C-17 and it is actually less than the C-141 and C-130.

Senator **Eagleton**. Have the C-17 versus the C-5, in terms of parking on the ground and handling greater facility—greater facility in handling of aircraft once they blend?

Mr. **Ormsby**. If you take a specific area, a C-17 can get on smaller paved surface, but the C-5 has demonstrated that you can take it off the paved surface. The C-17 can be loaded through one opening only. So anything driven on the C-17 must be backed off. The C-5 on the other hand, has openings at both ends, so the load can be driven on and when you arrive at the field the load can be driven off in less time.

There is no question about it, the C-17 has certain advantages attendant to its design and concept. It is somewhat designed in a different set of criteria. To say one is better than the other is very difficult.

Senator **Eagleton**. My final question, if I may, Senator Andrews from North Dakota at yet another hearing on this subject matter referred to this question and answer from a GAO report and I would like your comment.

C-17/C-5 AVAILABILITY

The question was: "What did the McDonnell-Douglas data show on availability of the C-17 versus the C-5?"

Here is GAO's answer:

> Lockheed proposes to deliver the first C-5 38 months after contract go-ahead. They plan to develop the 12th aircraft 56 months after the go-ahead.
>
> With full C-5 program TOA devoted to the C-17 McDonnell-Douglas asserts that the C-17 could make first flight 40 months after contract go-ahead and could deliver the 12th aircraft 56 months after go-ahead.

So as I read this from this report, at the end of 56 months both Lockheed and McDonnell-Douglas would be able to deliver the 12th aircraft. The only difference insofar as the GAO's analysis is concerned, is Lockheed, the first C-5 would be 38 months after contract, and with McDonnell-Douglas' C-17 it would be 40 months after contract for the first aircraft.

Do you have any reason to dispute that answer by the General Accounting Office?

Mr. **Ormsby**. Those statements are correct as they stand, but they need another paragraph. I think we need to reflect that when the first C-5 comes off the line, as soon as you shake it down it goes to operational units and are available that day, that week. When the first C-17 comes off the line it goes into a flight test program. Depending upon the difficulties in flight testing it can take upward from a year to go through all of the tests. After that, the Air Force typically builds a training squadron, puts together 16 airplanes, assembles a training syllabus, teach mechanics how to service the airplane, and

So simply comparing when the two planes come out the respective plant doors is not an accurate reflection of when they are ready to put into use. I would submit that for the C-17 it would be 2 to 4 years longer. We are producing an airplane in an interrupted production phase. It is not a new airplane.

C-17/C-5 COMPARABILITY

Senator **Eagleton**. If I could take 10 seconds to tidy up an earlier question. I don't know if I understood you or you understood me on the question of the comparability of the C-17 versus the C-5 on outsize cargo. I will put it very directly.

Can the C-17 handle two M1 tanks and the C-5 can handle but one?

Mr. **Ormsby**. It is the other way around. The C-5 can carry two, the C-17 can carry one.

Senator **Eagleton**. That is all I have.

Senator **Stevens**. The C-5 can carry two? We were told for wing loading they carry one?

Mr. **Ormsby**. The current fleet with the old wing, in an attempt to maximize its economic life, for normal routine peacetime operations does have restrictions on the airplane. If a whistle were to blow and this country went to war, those restrictions will be totally lifted and the airplane would carry its original design payload.

Through the good management of the Air Force and Military Airlift Command they have already generated a service life bank, if you will, in the airplane to permit it to supply NATO or fulfill a NATO contingency. So the limitations that are frequently talked about the C-5 are peacetime routine kind of mission restraints. Today's C-5 would carry two main battle tanks.

Senator **Stevens**. Well, I don't really have the time to go into that, but what will be the initial operating capability of your C-5B—incidentally, we have never seen a C-5B either, have we? We have not seen a C-17, but not the C-5B either?

Mr. **Ormsby**. The C-5B exists if you look at the current modified airplane, you are seeing most of it. There are other changes that are being put into the C-5B in terms of avionics and electronics that would not be visible. If you look at the current new winged airplanes you could not distinguish it from our C-5B. There would be nothing visibly different about it.

Senator **Stevens**. I am referring to the delay in terms of the C-17 on the training squadrons. Nobody is training in the C-5B?

Mr. **Ormsby**. There is already a training squadron in service and in place for the C-5. The airplanes are so similar we don't need a new training squadron.

Senator **Stevens**. What would be your IOC if we have funds in the 1983 year?

Mr. **Ormsby**. Basically our schedule calls for delivery of the first airplane 38 months after contract go-ahead. That is day by day. Whenever the contract is signed, we will deliver the first one 38 months later and it will go directly into operational service.

Senator **Stevens**. And 56 on the 12th?

Mr. **Ormsby**. We will deliver all 50 in the next 38 months after the first delivery.

Senator **Stevens**. Thank you very much. We appreciate your testimony.

Mr. **Ormsby**. Thank you for the opportunity.

McDonnell-Douglas Corp.

STATEMENT OF MR. SANFORD N. McDONNELL, CHAIRMAN OF THE BOARD, McDONNELL-DOUGLAS CORP.

ACCOMPANED BY:

MARVIN D. MARKS, CORPORATE VICE PRESIDENT/ENGINEER

JOE VAN DYKE, GENERAL MANAGER, C-17

HEARING PROCEDURE

INTRODUCTION OF ASSOCIATES

Senator **Stevens**. The next witness is the McDonnell-Douglas Corp., Mr. Sanford N. McDonnell, chairman of the board, and Mr. Marvin D. Marks, corporation vice president and engineer.

Mr. **McDonnell**. Sanford McDonnell, I go by the nickname of Sandy. I am chairman of the board of directors of McDonnell-Douglas and chief executive officer.

Appearing with me today is Mr. Marvin Marks, corporate vice president of research who until recently was the vice president and general manager of the C-17. On his left is Mr. Joe Van Dyke, general manager of the C-17 who was the driving technical forcer behind the AMST YC-15 development and the current C-17 configuration development.

In response to the subcommittee's invitation to appear, we appreciate this opportunity to answer your questions regarding the C-17.

Senator **Stevens**. I want to state that all of us, the members have already left, are involved in another hearing that is very critical in another committee. We are going to go ahead and hear the testimony of McDonnell-Douglas and then we will have to recess and come back and hear the project director of the project on military procurement. That will be at 1:00 o'clock.

Now, it may be that we will be called up there before we can ask you gentlemen the questions. I don't mean to inconvenience you, but it may be we need to ask you if you could come back at 1:00 o'clock to continue the question hour also. But we will see how long that goes.

Thank you very much. It is nice to see you.

Mr. **McDonnell**. I think we are going to show just a few viewgraphs. Without turning out all of the lights, could we just have these lead lights out? I think that will be enough.

Can you see that all right?

Senator **Stevens**. Yes sir.

McDonnell Douglas Corporation
U.S. AIR FORCE
Sanford N. McDonnell
Chairman, Chief Executive Offic
Douglas Corporation

(VIEWGRAPH 19)

CONTRIBUTION TO AIRLIFT REQUIREMENTS

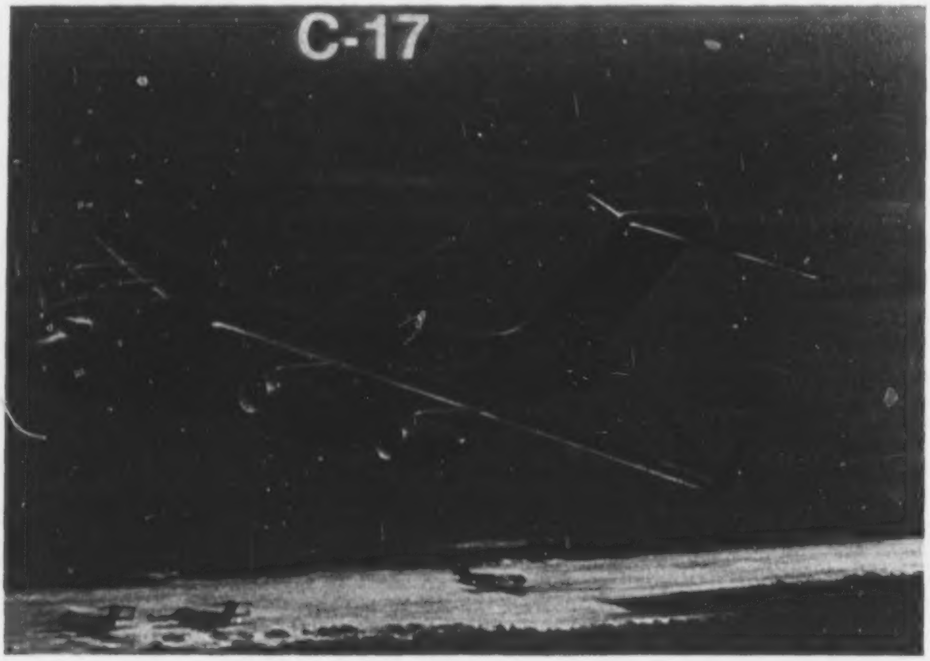
For over 60 years McDonnell-Douglas has been preeminent in the development and production of commercial and military aircraft. We gave the world its first practical military transport aircraft and for 38 continuous years have produced the free world's finest jet fighter aircraft. It was in this tradition after more than a decade of preparation we entered into the Air Force C-X competition.

For some time the Air Force, the Army, and the Marines have been stating that existing airlift was seriously inadequate to meet mobility requirements by conventional war strategy. We have participated in an earlier response to this need as the designer of the AMST YC-15.

Senator STEVENS. I think we have some complaints from the television people about lights.

(VIEWGRAPH 20)

Mr. McDONNELL. The YC–15 aircraft we show on the screen, that first flew in August 1975, made over 400 flights and accumulated almost 800 flight-hours, meeting or exceeding all of the specifications and design goals. In many respects, this prototype development program proved the technologies included in our C–X proposals and began the evolution of the C–17.



(VIEWGRAPH 21)

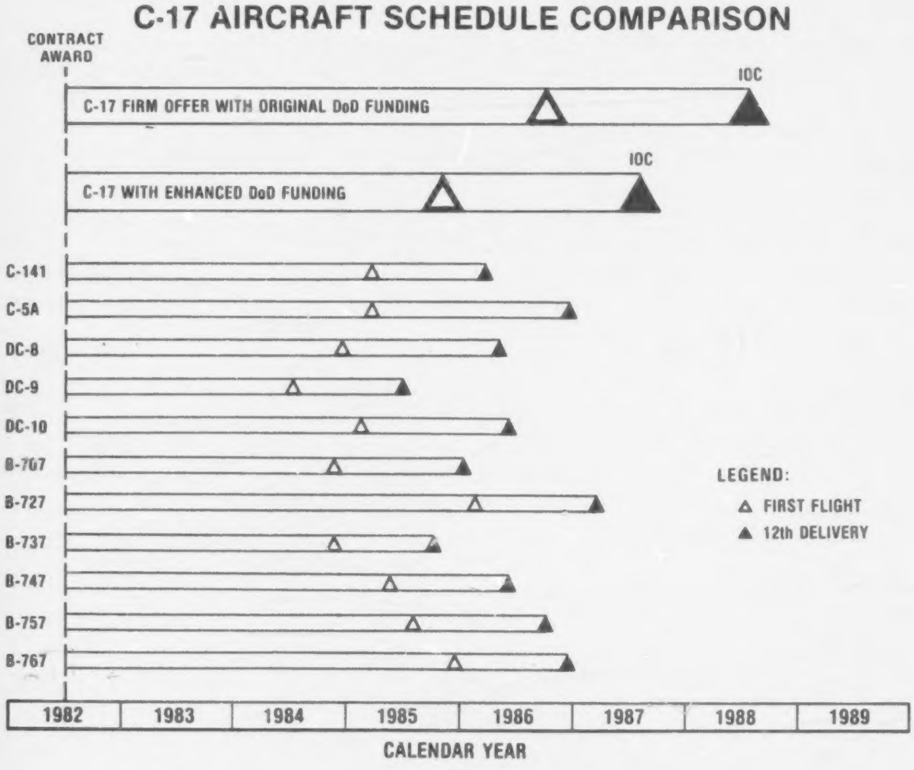
AIR MOBILITY REQUIREMENTS

The need for additional airlift capability has been well documented. This resulted in an Air Force request for proposal seeking specific designs from various contractors on how to best meet air mobility requirements. Contractors responded on January 16, 1981, and along with others, MDC submitted its design.

On August 28, 1981, the Air Force officially selected McDonnell-Douglas as its C-X contractor. In winning this competition, our dedicated Douglas Long Beach C-17 team expended thousands of hours designing an aircraft stressing both operational utility and low operations and support costs. We spent over $70 million of our corporation money on this program.

After completing a study of various alternatives for obtaining additional airlift capability, the Air Force advised OSD in early Janury 1982 that a combination of C-17 aircraft and KC-10 tanker/cargo aircraft, together with a funded Civil Reserve Air Fleet (CRAF) enhancement program was desired. However, the Defense Department announced a decision in late January 1982 which deleted the C-17 and instead proposed the purchase of 50 C-5's along with 44 KC-10's.

During the subcommittee's airlift hearing on May 6 for Departmental witnesses, the issue was raised regarding the availability of the C-17 in operational service considering the generally recognized military advantages of the C-17. Pursuant to your request, Mr. Chairman, to discuss this issue, we intend to show that with sufficient funding we can deliver the C-17 in a timely manner.



(VIEWGRAPH 22)

PRODUCTION AVAILABILITY OF C-17

The production availability of the C-17 is directly dependent on the amount of funds dedicated for its development and procurement. Development funding was restricted in the early years by the C–X proposal terms and conditions. Assuming a July 1982 go-ahead and funding according to the original fiscal year restrained plan, first flight would be in October 1986 with the first 12 aircraft squadron operational by August 1988.

With the accelerated funding presently proposed by DOD for outsize airlift enhancement, we could have first flight by November 1985, with the first 12 aircraft squadron operational by August 1987.

Please note that the Air Force defines the C–17 Initial Operational Capability (IOC) to occur with the delivery of the 12th aircraft which represents a very substantial increment of outsize airlift capability.

In the interest of time if I may depart from my text, in order to compare the availability of one aircraft with another you really should do it on an apples and apples basis; namely, on the same funding and when the first operational squadron is activated.

The delivery of the first airplane is not the full operational capability of a new squardon. You have got to get all 12 aircraft, so to compare the first delivery of 1 airplane with the twelfth delivery of another is not comparing apples and apples. And that is a very important point I want to get across.

Therefore, this IOC should be compared, because it is on roughly the same funding, with the other airplane to determine exactly how much later that other airplane—this airplane might be..

Going on, and I would like to comment further, Mr. Chairman, about the funding that we used to come to this line here, which is roughly a year earlier. McDonnell-Douglas Corp. will guarantee the timely delivery of the first squadron of 12 aircraft at either the original or the accelerated funding profile level.

There are several reasons why we are confident of making such assurances. First a tremendous amount of applicable flight evaluation was secured in the very sucessful YC–15 program.

Second the level of concurrency in the C–17 program is acceptable by any industry practice and by comparison is less than the C–141 or the C–5A programs. You can see that on this board.

The C–141 made its first flight at this point, and got its twelfth aircraft at this point. Considerably earlier than what we are talking with enhanced and considerably more than that, than the original constraint funding of our competition. The original C–54 shown first here, and initial operational capability with the twelfth aircraft considerably earlier in time.

Third, as stated by NASA Director, James Beggs, to the Deputy Secretary of Defense, and with which we totally agree, the C–17 "presents no more technical risk than that entailed in the new commercial transports".

Finally, even with accelerated funding presently proposed by DOD for outsize airlift enhancement, the C–17 is less concurrent than the DC–8, DC–9, DC–10, 707, 727, 737, or 747, 757, and 767. These last two have not been accomplished yet, but they are planned.

Incidentally, Mr. Chairman, I should explain for clarification here that we have taken from the go ahead of each one of these airplanes and laid out in months the first flight and to the 12th delivery. And obviously all of these bars here in yellow are not to be compared with the actual years below.

We believe that on the C-17 we have taken a prudent and somewhat conservative approach to our schedule development.

Our negotiated contract incorporates all the important elements necessary to accomplish a low-risk effort. Its specific provisions are well defined and detailed covering all aspects of our design. We have a low-risk program and have offered a contract warranty which provides significant cost protection to the Government.

The warranty provisions cover such things as fleet reliability, maintainability, availability, system performance, structural life, engine performance and spares. A very, very comprehensive warrenty provision and the warranty provides for compliance with no change in contract price.

TECHNOLOGIES IN C-17

Further evidence that the C-17 is an acceptable risk is because of the decade of technology development we have specifically directed toward military airlift requirements. A few of the technologies incorporated in the C-17 are: Supercritical wing proven on our YC-15; winglets tested on DC-10, KC-135 and exective jets; the reliable, fuel-efficient commercial PW 2037 engine—which will have 1.5 million flight hours by August 1987—the latest technology; digital flight control systems tested in the YC-15; heads-up display from YC-15, DC-9, Super 80, and F-18; directed flow thrust reversers for in-flight and ground operation proven on YC-15; and composite structures proven in many of our current aircraft including the AV-8B, F-18, and DC-10.

These technologies provide significant operational benefits and cost advantages, with greater simplicity and greater reliability. Certainly, one of the most significant contributions of the C-17 is its reliability and maintainability compared with all preceding military transport aircraft; this means a major reduction in the requirement for all personnel, particularly the highly trained or those requiring special skills.

As you gentlemen of the committee know all too well, one of the major concerns of the military at this time is having enough highly skilled people to maintain these weapon systems. As you can deduce the requirement for these, the turnaround in reliability is greatly improved and the very serious shortage of highly trained, skilled personnel is very much alleviated.

Gentlemen, we are pleased to have had this time to make this statement and we assure you that given the opportunity, the acquisition of the C-17 will not only satisfy the mobility needs of the Department of Defense, but can also be accomplished in a timely and efficient fashion.

[The prepared statement of Sanford N. McDonnell follows:]

PREPARED STATEMENT OF SANFORD N. MCDONNELL, CHAIRMAN, CHIEF EXECUTIVE OFFICER, MCDONNELL-DOUGLAS CORP.

Mr. Chairman, I am Sanford McDonnell, Chairman of the Board of Directors and Chief Executive Officer of the McDonnell Douglas Corporation. Appearing with me today are Mr. Marvin Marks, Corporate Vice President, Engineering and Research who until recently was the Vice President-General Manager of the C-17; and Mr.

Joe Van Dyke, General Manager C-17 who was the driving technical force behind the AMST YC-15 development and the current C-17 configuration development.

In response to the subcommittee's invitation to appear, we appreciate the opportunity to answer your questions regarding the C-17.

For over 60 years, the McDonnell Douglas Corporation has been preeminent in the development and production of commercial and military aircraft. We gave the world its first practical military transport aircraft, and for 38 continuous years have produced the free world's finest jet fighter aircraft.

It was in this tradition that after more than a decade of preparation we entered into the Air Force CX competiton. For some time the Air Force, Army and Marines have been stating that existing airlift was seriously inadequate to meet the mobility requirements of our conventional war strategy. We had participated in an earlier response to this need as the designer of the AMST YC-15. This aircraft first flew in August 1975, made over 400 flights and accumulated almost 800 flight hours, meeting or exceeding all of its specifications and design goals. In many respects this prototype development program proved the technologies included in our CX proposal and began the evolution of the C-17.

The need for additional airlift capability has been well documented. This resulted in an Air Force request for proposal seeking specific designs from various contractors on how to best meet air mobility requirments. Contractors responded on 16 January 1981, and along with others, MDC submitted its design. On 28 August 1981, the Air Force officially selected McDonnell Douglas as its CX contractor. In winning this competition, our dedicated Douglas Long Beach C-17 team expended thousands of hours designing an aircraft stressing both operational utility and low operations and support costs. We spent over $70M of our corporate money on this program.

After completing a study of various alternatives for obtaining additional airlift capability, the Air Force advised OSD in early January 1982 that a combination of C-17 aircraft and KC-10 tanker/cargo aircraft, together with a funded Civil Reserve Air Fleet (CRAF) enhancement program was desired. However, the Defense Department announced a decision in late January 1982 which deleted the C-17 and instead proposed the purchase of 50 C-5s along with 44 KC-10s.

During this Subcommittee's airlift hearing on 6 May for Departmental witnesses, the issue was raised regarding the availability of the C-17 in operational service considering the generally recognized military advantages of the C-17. Pursuant to your request, Mr. Chairman, to discuss this issue, we intend to show that with sufficient funding we can deliver the C-17 in a timely manner.

The production availability of the C-17 is directly dependent on the amount of funds dedicated for its development and procurement. Development funding was restricted in the early years by the CX proposal terms and conditions. Assuming a July 1982 go-ahead and funding according to the original fiscal year restrained plan, first flight would be in October 1986 with the first 12 aircraft squadron operational by August 1988. With the accelerated funding presently proposed by DOD for outsize airlift enhancement, we could have first flight by November 1985, with the first 12 aircraft squadron operational by August 1987. Please note that the Air Force defines the C-17 Initial Operational Capability (IOC) to occur with the delivery of the 12th aircraft which represents a very substantial increment of outsize airlift capability.

The McDonnell Douglas Corporation will guarantee the timely delivery of the first squadron of 12 aircraft at either the original or the accelerated funding level.

There are several reasons why we are confident of making such assurances. First, a tremendous amount of applicable flight evaluation was secured in the very successful YC-15 program. Second, the level of concurrency in the C-17 program is acceptable by any industry practice and by comparison is less than the C-141 or the C-5A programs. Third, as stated by NASA Director, James Beggs, to the Deputy Secretary of Defense, and with which we totally agree, the C-17 "presents no more technical risk than that entailed in the new commercial transports. . . ." and finally, even with accelerated funding presently proposed by DOD for outsize airlift enhancement, the C-17 is less concurrent than the DC-8, DC-9, DC-10, 707, 727, 737, or 747, 757, and 767. We believe that on the C-17 we have taken a prudent and somewhat conservative approach to our schedule development.

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Gentlemen, we are pleased to have had this time to make this statement and we assure you that given the opportunity, the acquisition of the C-17 will not only satisfy the mobility needs of the Department of Defense, but can also be accomplished in a timely and efficient fashion.

FUNDING PROFILE

Senator STEVENS. Thank you, very much.

Mr. McDONNELL. One further chart I would like to show, is the funding profile that we use in determining that earlier availability date. It is not exactly the C-5 funding. If you see that, as we understand that is on the following line, of $270 million in fiscal year 1982 and $860 million in 1983.

As you can see on the line just above it, we are talking about $31.6 million in fiscal year 1982 and $725 million in fiscal year 1983. That moves our IOC up 1 year earlier from the very restricted funding basis that we signed with the Air Force back in 1981.

Senator STEVENS. Thank you, very much.

I was committed to be upstairs 10 minutes ago. Senator Eagleton indicated he wished to ask some questions now. If you don't object, I would like, when he finishes, to recess the committee and come back into session at 1 o'clock this afternoon, if that wouldn't be inconvenient to you.

Will that inconvenience you, sir?

Mr. McDONNELL. You want us back, too?

Senator STEVENS. By 1 o'clock; yes, sir.

Senator Eagleton?

Senator EAGLETON. I will try to dispose of a couple of questions now, then all of us will have to join the committee upstairs.

C-17/C-5 COMPARABILITY ON OUTSIZE CARGO

What is the comparability of the C-17 versus the C-5 on outsize cargo?

Mr. McDONNELL. I think, Senator, one of the most important aspects is the comparison of the intratheater capability. The C-5 is not designed to take care of the intratheater capability. And I would like, if I might, to just talk to that point for a moment, if I could, because I think it is very fundamental to what the C-17 brings to the airlift picture. And if my colleague here will find the right viewgraph.

Let me just back up a second. We entered the competition along with Boeing for the AMST—the advanced medium STOL transport—which was the Army, Air Force, and Marines recognition of a very serious shortfall in capability to handle intratheater outsized equipment. We built the YC-15 and Boeing built the YC-14. We flew it many hours, as I already talked about, to demonstrate its ability to perform intratheater capability.

Then the military decided, I think rightly so, that although this covers just the intratheater, which is not solved at all without the C-17, in any of the current proposals, but they felt that they needed the additional flexibility to be able to carry from the continental United States a load of outsize and other equipment across the ocean to the theater of operation and not have to land in a major airport just inside the boundary of that continent.

But instead, we have to fly all of the way in and land close to the theater operation, right near the battle area. This, of course, eliminated landing, unloading, and reloading for airplanes that could then be carried on into the forward edge of the battle area. It provided a flexibility for the Air Force, Marines, and Army, which they could not have had if they had stuck to the original intratheater outsize lifter like the YC-15.

So, it is true, obviously, that you can put more outsized equipment in the other airplanes, but the plain advantage of the C-17 is that you can carry it nonstop right up to the point where it is needed rather than going through the waste of time or additional time of loading out one airplane into another. If that field is bombed out, they wouldn't be able to land there at all, anyway.

Senator EAGLETON. So, is that part of the picture of the enhanced flexibility of the C-17?

Mr. McDONNELL. That is right.

Mr. MARKS. Senator Eagleton, again, related to the efficiencies and flexibility of the C-17, I would like to point out a couple of things by taking you on a typical mission outside on CONUS.

If you had deployment from Fort Carson or Fort Hood where the Army personnel and equipment are and use the runways which exist in those places rather than to have to transport them to Dover or some other place, you can get out of those airstrips with the C-17, because of its thrust loading, at full maximum gross weight and maximum payload, maximum load of fuel and go from there trans-Atlantic and beyond. That is a key flexibility that does not currently exist even for the outsize.

In the terminal area of things, you have your choice many times to go into major airports or to have to disburse for wartime reasons into other airfields. The C-17 was designed specifically for that purpose as a direct delivery airplane. It was designed as a smaller, compacter airplane which we like to call a square airplane, which gives it great advantage, not only in the air to get into small strips, but in maneuvering after you get there.

So the throughput capability of the C-17, because of the technological features including the ability to reverse and back up the airplane—picture yourself in a parking lot trying to reverse if you had no reverse gear on your automobile, the same situation in being able to use the limited space in the wartime situation.

Those are some of the things that were built into the requirements and responded to within the C-17.

DELIVERY DATE OF FIRST SQUADRON

Senator Eagleton. As to the delivery of the first squadron, when 12 aircraft would be available I read an excerpt that Senator Andrews had obtained from a GAO report, if you were present in the room when I read that to the folks at Lockheed, do you in any way agree or disagree with the conclusion as reflected in that GAO quote. Or do you want me to read it to you again?

Mr. Marks. We do not disagree with the timing. I think if you check the schedule charts you will find our first flight is very close to what the GAO report says. There is a little bit of difference in the 12th airplane delivery because they used a little bit faster funding in the first year than we did in the chart Mr. McDonnell showed you where we had only the 31.6 in 1982.

So you will see a little difference in the 56 and what I believe is now 61 instead of 56.

Senator Eagleton. All right. And as to the nature of your warranty, Mr. McDonnell, which you described in your prepared statement, it is a full and complete warranty for the entire aircraft structurally, performancewise and in almost every respect that I can imagine as I heard you describe it.

Mr. McDonnell. Yes. That is right. And they call for, by the contract clause and conditions, to be corrected if there is any problem and no change in the contract price.

SUBCOMMITTEE RECESS

Senator Eagleton. Well, I am going to go on to the other hearing myself because we are all in the Government Affairs Committee as well. So we will—the committee will be in recess until 1 o'clock in this room. And the chairman asked if you could come back at that time.

[Whereupon, at 10:20 a.m., the subcommittee was recessed, to reconvene at 1 p.m., the same day.]

(AFTERNOON SESSION, 1:10 P.M., THURSDAY, JUNE 24, 1982)

NONDEPARTMENTAL WITNESSES

McDONNELL-DOUGLAS CORP.

STATEMENT OF SANFORD N. MCDONNELL (Resumed)

C-17/C-5 PAYLOAD COMPARISONS

Senator RUDMAN. The subcommittee will be in order.

The chairman is on the way. Because I have limited time we will try to get the hearing going and we appreciate everybody coming back.

I think the chairman may have several questions for you; I have just a few, and if you have covered this with Senator Eagleton, I apologize. I had to leave at that point.

I was curious about several comparisons on the C-17, Mr. McDonnell. What are the payload comparisons between the C-17 as now projected and the C-5?

Mr. McDonnell. I would defer to Mr. Marks.

Mr. MARKS. The design payload on the C-17 is 172,000 pounds. And that is a payload with a 2,415 nautical mile range. The payload out to something over 4,000 miles is about 120,000 pounds. And the other range is a couple hundred miles over 5,000.

Senator RUDMAN. What about the landing and takeoff requirements?

Mr. MARKS. The landing capability of the C-17—obvioulsy landing is put in many kinds of terms. There are critical field lengths, there are what are called emergency wartime operations, or simply what is the ground rule. So when you start to talk about landing distances, our takeoff distances, that needs to be clarified.

Senator RUDMAN. I understand the terminology. Let's just talk about a standard day, and a full gross on a hot surface runoff.

Mr. MARKS. Full gross weight on a hot day, that is a full payload and a full load of fuel, the takeoff distance, critical field length is 7,500 feet.

In the, what we would call the intra theater kinds of mission, where the payload is around 100,000 pounds, with fuel to get in and then take it out of the combat zone, the takeoff critical field length is 3,000 feet. Comparable landing distances, that go along with those missions are 3,000 feet for the full payload and fuel required to get out of the war zone, down to about 2,000 feet critical field length at lighter gross weights and lighter payloads.

Senator RUDMAN. Now, I know that these figures tend to be difficult and probably mathematical, but what was the last current 1981 dollars cost on the size originally contemplated by the Air Force?

Mr. Marks. in terms of the flyaway cost without amortizing the R&D, but flyaway cost for the force size that was proposed on the competition, the 1980 price, unit flyaway was $40 million.

AIRCRAFT WARRANTIES

Senator RUDMAN. What warranties were there with that aircraft?

Mr. MCDONNELL. I will defer to Mr. Marks again?

Mr. MARKS. The warranties that have been negotiated with the Air Force and for which we have signed the original contract at no change to the contract price, included the warranty of a reliability number, a maintainability number, and an availability number. I know in terms of transports past, those are well in advance of what they currently have.

It also includes warranty of the total system performance as determined by the specification compliance test.

It also includes structural life of the airplane, with a design to 30,000 hours tested to over 60,000 hours.

It includes an aircraft structural warranty for 10 years after the delivery of each airplane.

And the engine has a warranty as well as service life policies that include the uninstalled, the installed, the spare parts, and all of the data that give the Air Force the most favorable terms and conditions that are offered to any of their commercial customers.

OUTSIZE CARGO CAPABILITY

Senator RUDMAN. Finally, I think you touched on this somewhat, Mr. McDonnell did in his testimony. If we could just review the outsize cargo capability of this aircraft, I believe it would be useful in this discussion.

Mr. MARKS. Well, basically, within its payload capability of 172,000 pounds, the C–17 was designed and configured to take all of the outsize equipment that is used by the Army and the Marines. The tank, the 5-ton trucks, which they paid special attention to architecturing the internal dimensions of the airplane so that it could load two full-height, five-gun trucks, for example, side by side. It can carry all except, I believe, one item of outsize that can be carried by the C–5 and if I recall, Joe, that is a bridge?

Mr. VAN DYKE. A bridge launcher.

Mr. MARKS. Other than that I think we carry every vechicle.

LOADING SYSTEM ON C–17

Senator RUDMAN. What is the loading system on the C–17?

Mr. MARKS. That was specially designed for that purpose and has both logistic capability and the tactical capability within an intergral cargo system in which you can load the pallets, any of the outsize vehicles. It was, I like to say, specially tailored to the modern Army that was defined for us in the C–X competition.

It also has full air drop capability. It has full container drop capability. The outsize heavy air drop was designed for 50,000 pounds, with the opening in the aft designed so that the infantry fighting vechicle could be air-dropped, which was a requirement in the competition.

Senator RUDMAN. Just so I have a clear understanding and the record is clear, with maximum funding but not to exceed that which was planned within the current C-5, C-5A procurement, on a decision, let's say made on the first of July, what was the date of delivery of the first aircraft?

Mr. McDONNELL. I think a much more important figure would be the IOC, the initial operating capability or the first active squadron.

Senator RUDMAN. Fine.

Mr. McDONNELL. That based upon the original competition level—I will give you both answers.

Senator RUDMAN. Good.

Mr. McDONNELL. On the original competition level was 74 months after first flight, I mean after go-ahead. Maybe it would be worthwhile, Senator, just to show you these——

Senator RUDMAN. Why don't you put that one chart up again.

Mr. McDONNELL. Let me put up first the funding that was consistent with the competition and one upon which the award was made. This is the original McDonnell-Douglas proposal and contract adjusted to a July 1, 1982, contract go-ahead since we obviously didn't get it back last year.

Going down to this line here, we see the C-17 funding required along this line compared with the C-5 proposed funding along this line and on this schedule basis, you have 180 in fiscal year 1983, the IOC would be 74 months after go-ahead.

Now in answer to the second part, if we used the funding that approached a little more the C-5, albeit a little behind, as you can see, 270 in 1982 versus 31.6 million and 725 fiscal year 1983 versus the 860 or a total of about 757 million at the end of 1983, that would provide an initial operating capability, the first squadron, fully operational, in 62 months at the go-ahead and if I understood Mr. Ormsby this morning he said 56 months until the 12 C-5B after go-ahead, which of course is a 6-month difference.

Senator RUDMAN. Thank you very much.

Senator Mattingly.

C-17 R&D AND PROCUREMENT COSTS

Senator MATTINGLY. Just a few questions. What would be the estimated number of C-17's needed to provide equal capability with the 50 C-5's?

Mr. MARKS. I didnpt understand the last part of the question.

COMPARABILITY OF C-17/C-5

Senator MATTINGLY. How many C-17's would be needed to provide a lift capability equal to the 50 C-5's?

Mr. McDONNELL. First of all, Senator, I don't think you can really say the equal capability because the C-17 provides the intratheater capability that no other airplane can provide. So if you put that aside, are you speaking of ton-miles per day or what parameter are you asking?

Senator MATTINGLY. Well, there is an estimate that has been done by the Air Force in reference to that question. I'm speaking of the capability of the C-5 compared to the C-17.

Mr. McDONNELL. We prefer, obviously, not to compare any more than we have to, the capabilities of our plane against the other for obvious reasons. We can give you the capability of the C-17 as specified?

Senator MATTINGLY. That would be part of it. But as to the comparison done on how many 747's it would take to do the job of the C-5's and the same scenario with the C-5B versus the C-17, is it true that 64 C-17's are needed to equal the lift capability of 50 C-5's?

Mr. McDONNELL. Senator, as I mentioned before, I don't think we are really comparing apples and apples here, because the C-17 is an entirely different capability. It has the capability of flying from the United States directly to the battlefront line and depositing its airload, or shuttling back and forth between major continental airports to the battlefield line and you just can't compare the C-17 and C-5, because there is no capability there to do that sort of thing of any significance, with obvious exceptions, but basically the intra-theater or direct delivery approach that the C-17 was defined for—and we have a chart, and perhaps I can explain this a little better.

DIRECT DELIVERY AIRLIFT

This airplane was called by the Air Force a direct delivery airlift. In other words, it could take off from a major airfield in the United States and fly directly to the austere airfield if need be, to directly deliver its cargo. Or it could, of course, go into the major airfields as these airplanes could and then assist carrying the cargo from these aircrafts into the austere field.

So it has a flexibility of working intra-theater or it can go directly and avoid the tremendous amount of time of unloading and reloading to carry the equipment outsized and otherwise up to the austere field.

When a major airfield like this is bombed out, there may be no way to get these airplanes in there and the only way to get it in may be by the C-17. So I think we are really comparing apples and oranges when you compare the two airplanes.

Senator MATTINGLY. For the record, the Air Force had done a comparison and had told Congress that a comparable capability of 50 C-5's was 64 C-17's. And I don't think we are comparing apples and oranges. We are comparing which plane can carry the most outsize equipment.

Mr. McDONNELL. I think that is true of the layout here.

Senator MATTINGLY. The study showed that the cost of 50 C-5B's was $5.9 billion versus $10.3 billion for the 64 C-17's. That was done by the Air Force and provided to Congress. We will be happy to make that information available to you.

Mr. MARKS. Senator, in the C-X competition there was specified not only all of the equipment as to what needed to be moved, but how it was to be moved and the missions to be considered.

MISSIONS FOR RDF REQUIREMENT

There were four missions for the requirement for the RDF. The rather simplified analysis that was made following the acquisition strategy presented by the Air Force on those four missions, that was used in the comparison between the 747 and the C-5, if you would refer to the Air Force, to their acquisition strategy at the time that there was a decision on the competition, I think you will find in three out of the four mission cases, the C-17 was the cost-effective and low-cost ownership airplane.

Senator MATTINGLY. I would like the Air Force study to be made part of the record.

[The information follows:]

AIR FORCE COST ESTIMATES DONE BY DR. AL KEEL, ASSISTANT SECRETARY OF THE AIR FORCE FOR RESEARCH AND DEVELOPMENT AND PROVIDED TO CONGRESS, FISCAL YEAR 1981

[Dollars in billions]

	B-747			C-5B, AF [4]	C-17
	Boeing [1]	Boeing/AF [2]	AF [3]		
Number of aircraft/PAA	48/41	48/42	55/48	50/44	64/57
Acq	$3.0	$3.5	$4.0	$5.9	$10.3
O&S	6.0	8.6	9.8	8.8	6.7
20-yr LCC	9.0	12.1	13.8	14.7	17.0

[1] Boeing estimates as updated by April 29, 1982, offer on O&S costs using contractor logistic support.
[2] Air Force estimate of Boeing's comparable force.
[3] Air Force estimate of minimum comparable force.
[4] Air Force estimate of C-5B LCC.

DIRECT DELIVERY FUNCTION

Senator STEVENS. Yes. This is what I was meaning about not foreclosing the future because we will buy the C-17 in any event, as I understand it. That is the desire of the Air Force. I think they are getting some people to the point where they may be creating a record that would make that difficult

One of the things that bothers me about this is the mandate, the C-X mandate—what was your real mandate when you went into the C-X program? What were you trying to design? You were trying to meet this function here, weren't you, the direct delivery function?

Mr. McDONNELL. Yes, that was the primary point as I mentioned earlier, very briefly, we initially, the Air Force, Army and Marines talked about this intra-theater function here and that is what we designed, the AMST, which in our case was the YC-15, but it didn't have the legs to do anything in the way of direct delivery.

I think the Army and the Marines, the users as well as the Air Force, felt that what they really needed was an airplane with enough flexibility to do the total mission, and not rely on these other airplanes to get it into a field which might not be available under hostility.

Senator STEVENS. The Falklands shows that. You know I have landed on Ascension, they were using Ascension for a staging area for the Falklands. They barely had the legs to get there after that staging.

This direct-delivery concept would have gone directly to the Falklands?

Mr. McDONNELL. That's right. The Air Force and the users, the Army and the Marines, added a dimension of flexibility in how they made the airlift commitments. And not only does it allow them to get the outsize equipment and the oversize and this all directly to where it is needed faster than any other means, but it gives them the flexibility to use it in support of the C-5's, and the other airlift aircraft that are being used.

CURRENT FUNDING FOR C-17

Senator STEVENS. Are you getting any funding now for the C-17?

Mr. McDONNELL. No, sir. We were told—I was told by the Office of the Secretary of Defense back in February that they planned to give us a $31.6 million funding that was available from fiscal year 1981 to carry us on through until fiscal year 1984, but that has been held in abeyance because this—we are caught in the middle of this controversy between a C-5 and 747.

The answer is no, sir; we have not proceeded with it. Although, despite that, we are keeping our team in place and doing very productive work in anticipation of getting that funding.

Senator STEVENS. In terms of your IOC, you could meet approximately the same delivery schedule as a C-5B, so 6 months off of that; is that right?

Mr. McDONNELL. Yes; before you came back in—let's put the chart back up again.

Senator STEVENS. I apologize for that. I was called to another committee.

Mr. McDONNELL. This is the chart of the funding level of the original proposal adjusted to the July 1, 1982, contract award. When we signed up for and were given the paperwork for last August, as this kind of funding level adjusted, as I say, to starting on July 1. This is $31 million that we have been awaiting ever since the first part of February and on that basis of building up then with 180 in 1983, and along this line here, and for comparison we show proposed C-5, this would allow us to deliver the first squadron airplane, fully operational capability in August 1988, which is 74 months after go-ahead.

Now the other chart, which I showed earlier this afternoon, was the one which we used some funding approaching, although it would still be less than the C-5 funding, again the $31 million and 725 for a total of 755, cumulative, at the end of fiscal year 1983. That is compared to the $1.13 billion on the other line.

In this case, the IOC, the operational capability of first squadron, would be 62 months after go-ahead and if I heard Mr. Ormsby correctly this morning, he said there would be 56 months after go-ahead, the 12 airplanes, which is really the only way you should look at it because then you are comparing a full operational squadron in each case and that is 6 months difference.

Senator **Stevens**. Is your delivery date at 6 months difference the function of appropriation. If we had money this year, would it make any difference?

Mr. **McDonnell**. Yes, sir. It is a funding constraint, Senator. We could make it faster, considerably earlier, if we had more funding. And I think the chart that we showed of the schedule——

Senator **Stevens**. Why did you do that then in terms of this comparison? You are comparing a cumulative appropriation of $757 to a cumulative of C-5 appropriation of $1.13 billion in 1983. Why didn't you see what you could do with the same dollars?

Mr. **McDonnell**. We were told all we were going to get was $31.6 million. In the other case, that is reprograming and the supplemental of $270 and as far as the—so we took what we though was fairly reasonable and studied that.

C-5/C-17 FUNDING

Senator **Stevens**. Could you give us for the record what would happen to the IOC if you assume the same funding, for the C-5 or for the C-17 as programed for the C-5 under this proposal the——

Mr. **McDonnell**. Same as the bottom line?

Senator **Stevens**. Yes, what would it do to the IOC?

Mr. **McDonnell**. OK.

Mr. **Marks**. We did study other possibilities, the schedule being a function of funding. This is a curve of the various possibilities out of the months after contract award and you can see the 12 aircraft IOC time above that is as it strikes through each of these curves.

The curve Mr. McDonnell has just been talking about is this curve right here.

Mr. **McDonnell**. That is not with complete C-5 funding.

Mr. **Marks**. We studied assuming if we had the same kind of funding that we would put in a commercial package program, say on a new DC-11 or what, what the schedule would be, considering that there are some differences militarily.

If you did that, it would be that kind of funding to build up and have a viable program. So you are looking at somewhere in the order of 10 months' difference. If you went to commercial type of funding, that would come closer to matching the funding that is shown on the C-5 in 1983 and 1982.

Senator **Stevens**. I would like to have those figures for the record, if you could.

Mr. **Marks**. All right, sir.

[The information follows:]

AVAILABILITY OF C-17 AIRCRAFT

Mr. Chairman, pursuant to your request we have evaluated the availability of C-17 aircraft based on the funding presently planned for the C- B program (Exhibit A). This review concludes that the C-17 will achieve an Initial Operational Capability (IOC) 59 months after contract award (Exhibit B). The programs which were presented to the Subcommittee with IOC's 62 and 74 months from contract award were based upon different funding profiles (Exhibits C and D).

The production availability of the C-17 is directly dependent on the amount of funds dedicated for its development and production. If the C-17 is provided with the same amount of annual funding planned for the C-5, there is only three months difference between the 12th delivery of the C-17 and the 12th delivery of the C-5. The C-17 will solve both our short and long term mobility requirements, providing a direct delivery aircraft that the Air Force, Army and Marines need and want, and achieve a 12 aircraft IOC in the same timeframe as the planned C-5B 12th delivery.

Given any of the funding profiles, the McDonnell Douglas Corporation will guarantee the timely delivery of the first squadron of 12 aircraft for any of the aforementioned schedules. All of these schedules are more conservative than traditional commercial or previous military transport experience.

EXHIBIT A

C-17 ACQUISITION PROGRAM MAY 1987 IOC

WITH PROPOSED C-5 FUNDING, 1 JULY CONTRACT AWARD

THEN YEAR DOLLARS - MILLIONS

	FY 82[1]	FY 83	FY 84	FY 85	FY 86	FY 87[2]
CONTRACTOR SHARE						
ANNUAL	31	975	1921	1954	2058	2211
CUM	31	1006	2927	4881	6939	9150
ESTIMATED AIR FORCE SHARE						
ANNUAL	.6	123.4	238	241	255	274
CUM	.6	124	362	603	858	1132
TOA						
ANNUAL	31.6	1098.4	2159	2195	2313	2485
CUM	31.6	1130	3289	5484	7797	10,282
C-5 TOA (REFERENCE)						
ANNUAL	270	860	2159	2195	2313	321
CUM	270	1130	3289	5484	7797	8118

(REF. SEN. STEVENS QUESTION)

NOTES: (1) $31.6 MILLION SHOWN IS AVAILABLE FROM FY 1981 DEFENSE APPROPRIATION BILL
(2) ADDITIONAL FUNDING FOR C-17 AFTER FY 1986 REFLECTS CONTINUED PRODUCTION

EXHIBIT B

C-17 AIRCRAFT SCHEDULE COMPARISON

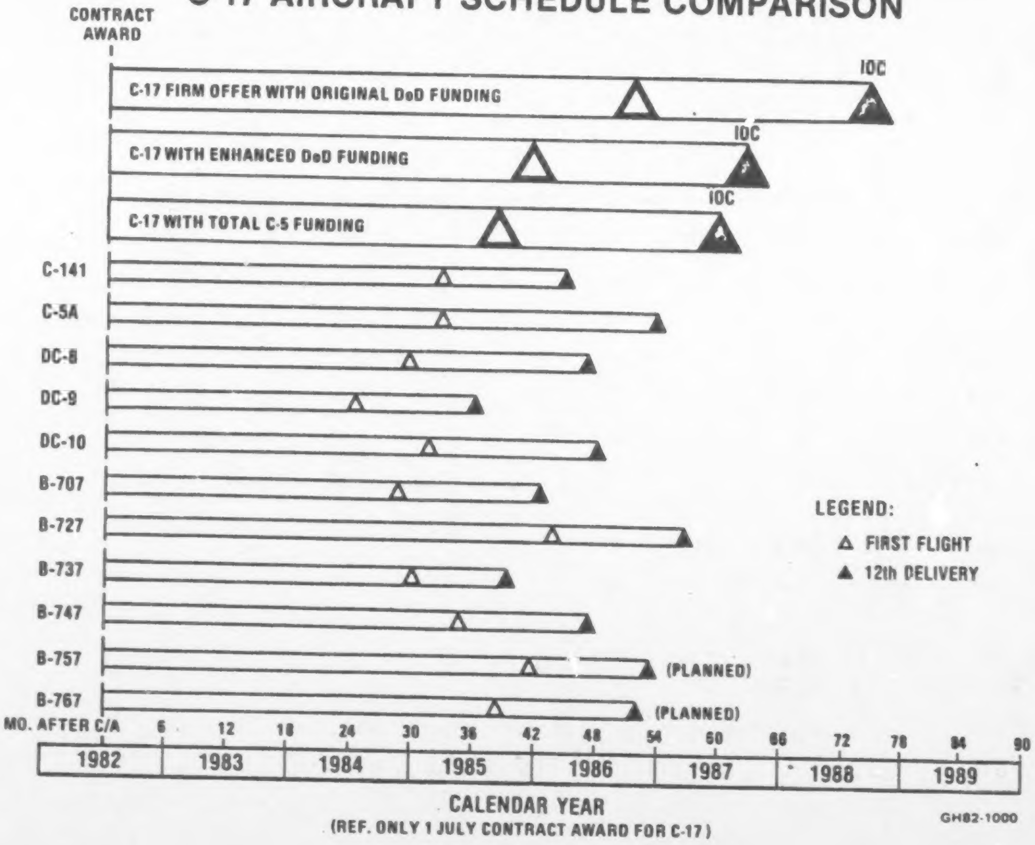

EXHIBIT C

C-17 ACQUISITION PROGRAM — FY 1987 IOC

C-5 TYPE FUNDING WITH 1 JULY 1982 CONTRACT AWARD

THEN-YEAR DOLLARS (MILLION)

	FY 82	FY 83	FY 84	FY 85	FY 86	FY 87
C-17 (CONTRACTOR SHARE)						
ANNUAL	31	660	1949	1708	1777	2364
CUM	31	691	2640	4348	6125	8489
C-17 (ESTIMATED USAF SHARE)						
ANNUAL	0.6	65	215	220	195	260
CUM	0.6	66	281	501	696	956
C-17 TOA						
ANNUAL	31.6	725	2164	1928	1972	2624
CUM	31.6	757	2921	4849	6821	9445
C-5 TOA (REFERENCE)						
ANNUAL	270	860	2159	2195	2313	321
CUM	270	1130	3289	5484	7797	8118

EXHIBIT D

C-17 ACQUISITION PROGRAM

MDC PROPOSAL ADJUSTED TO 1 JULY 1982 CONTRACT AWARD

THEN-YEAR DOLLARS (MILLION)

	FY 82	FY 83	FY 84	FY 85	FY 86	FY 87	FY 88
C-17 (CONTRACTOR SHARE)							
ANNUAL	31	163	505	2185	1759	1663	2239
CUM	31	194	695	2880	4639	6302	8541
C-17 (ESTIMATED USAF SHARE)							
ANNUAL	0.6	17	50	230	219	193	253
CUM	0.6	18	68	298	517	710	963
C-17 TOA							
ANNUAL	31.6	180	555	2415	1978	1856	2492
CUM	31.6	212	767	3182	5160	7016	9508
C-5 TOA (REFERENCE)							
ANNUAL	270	860	2159	2195	2313	321	—
CUM	270	1130	3289	5484	7797	8118	8118

MONTHS IN AVAILABILITY

Senator MATTINGLY. You were talking about the difference in availability. Isn't it true that the C-17's would be available only after an additional period of time as long as 2 years for training?

Mr. MARKS. In the conclusion which we negotiated with the Air Force Systems Command and, as I said, which we signed to a return price, the C-17 program in either of the funding cases we have described contain all of these things. It contains all of the completion of the ground-and-flight-development testing.

There is the operational test and evaluation that has been completed, which under the terms of the contracts is the operation of what we call a mini-squadron prior to IOC. We would have had the full complement of price and maintenance crews trained within that program. The organizational and intermediate support equipment is all in place and capability has been demonstrated and accepted through our warranties.

All of our contractor support which lasts 3 years after IOC is in place for the depot and spares support and we have a fully capable squadron, not just airplanes, ready for deployment at that point in time, according to our contract.

Senator STEVENS. That is at the IOC date?

Mr. MARKS. Yes, sir.

Senator STEVENS. The answer to the Senator's question is that he is in error, right?

Senator MATTINGLY. Are you saying that the first C-17's operational are fully available on delivery like the C-5—in other words, you would not have to do any more training, is that correct?

Mr. MARKS. As far as that is concerned, there is training. There obviously would be a requirement for additional training for downstream additional squadrons. That is something over which the Air Force has controls as to how they do that training.

As far as that squadron is concerned, they could be deployed at that point in time.

Senator MATTINGLY. The Air Force C-17's would reach operational readiness only after a period of training?

Mr. MARKS. Yes.

Senator STEVENS. Thank you very much; we appreciate you coming back.

Mr. MCDONNELL. If I could add just one more thing: This commercial line that you showed up here, I don't believe, and correct me if I am wrong, but I don't believe that has been thoroughly wrung out with the Air Force.

Mr. MARKS. That has not. The others have.

Mr. MCDONNELL. The one we showed earlier.

Senator STEVENS. I was really looking for comparisons in dollars and it comes closer to the commercial line than it does to your abbreviated C-5B equivalent. We would like something to indicate what is the IOC variable and by how much of the funding, the level funding of the C-5B request, the same level as the C-5——

Mr. MCDONNELL. The exact same level, yes, sir. We will file that.

Senator STEVENS. Thank you very much.

Senator MATTINGLY. Let my ask you one more question to clarify. I would like it made plain that we are talking about 12 planes——

Mr. MCDONNELL. You can't really compare a case of one airplane to one airplane.

Senator MATTINGLY. So we are talking about 12 planes, not those first produced?

Mr. MCDONNELL. That is the squadron as defined by the Air Force.

Senator MATTINGLY. Thank you. I will only add that the first C-5B will be immediately available and will require no further training period.

Senator STEVENS. Thank you. I might say to you, my World War II experience was flying the supply planes, the transport planes in much earlier days. But I think the need for this direct kind of delivery has been overlooked for many years and the Air Force misread what we told them last year or we wouldn't be in this problem this year. That is unfortunate that it happened.

Thank you very much.

We now turn to the Project on Military Procurement. Ms. Dina Rasor, project director.

PROJECT ON MILITARY PROCUREMENT

STATEMENT OF MS. DINA RASOR, PROJECT DIRECTOR, PROJECT ON MILITARY PROCUREMENT

CONCERN FOR C-5 PURCHASE

Ms. RASOR. I would like to thank you for inviting me to appear. I am glad to hear that there is a change in talking to some people outside of the Air Force and contractors on this position.

I don't have any charts, viewgraphs or movies today. However, I do think I have some interesting documents that had been provided to my through people from the Air Force that might be more interesting.

First of all, I would like to say the Project on Military Procurement is a project of the Fund for Constitutional Government, a nonprofit tax deductible organization. The Project on Military Procurement has no financial or parochial interests in this airlift decision. Our interest is motivated purely on finding the best buy for the taxpayer and the soldier.

We are concerned about this new proposed C-5 cargo plane buy. The reason is because we have seen a lot of problems in the decisionmaking process and the technical problems in the history of the C-5 in the past. I will definitely go into some of the technical problems that we have seen and get into some of the same issues that have been discussed today.

But I would also like to first go over and examine some documents that have been given to me that I think are pretty shocking, and pretty upsetting in light of the fact that this is potentially an $8 billion decision. First of all I would like to start out with a briefing that was given in early January 1982, I have been told by sources, from Air Force Secretary Verne Orr to DOD Deputy Secretary Frank Carlucci.

This document tells us all of the reasons we shouldn't buy the C-5 and why we should buy the C-17. It has all kinds of comparisons and problems and some things I was really concerned about, for example with the C-5 and limited cost and schedule visibility, tentative aircraft performance on specifications less demanding than the original C-5, no enforceable reliability of retainability of warranties.

This is not my information. This is information the Air Force gave to the Department of Defense on January 8th. But the Department of Defense decided to go with the C-5. On February 19, 1982, Army Undersecretary James Amborse denouced the C-5 decision in a letter to DoD's Chief of Research, Richard DeLauer, claiming the DoD decision was perpetuating a "scandalous situation."

An internal evaluation by the Air Force Office of the Deputy Chief of Staff for Plans and Operations stated that the proposal by the Boeing Company that the Air Force purchase of 747F cargo planes instead of C-5's could meet the Air Force requirement.

Another unclassified cable was sent to the Air Force from the Military Airlift Command. It has the stamp that says it is an unclassified document. It says either the C-5B or B 747 can effectively reduce the intertheater shortfall at the small increment of airlift proposed.

Those are documents that would not have surfaced unless they had been brought to me by people in the Air Force that are very, very upset about this decision. This is not a united decision. It is not widely accepted in the Air Force, who are the people that do the evaluation.

The picture that these documents show are a lot different than the picture that I have seen presented to this committee and other committees when the Air Force comes to testify.

We also had a computerized lobbying plan that shows all of the action plans to get the C-5 from Congress—through the House I should say, and each member of the House listed, with his Lockheed subcontractors in his district, the contractor contacts, his position, and further actions that included having political action committees wired to Congressmen who were actually working for the C-5 decision.

I think this shows that this has not been an open and even-handed debate on the issue and I think the committee members should be shocked that this kind of collusion between the Air Force, the DOD, and Lockheed goes on. For example, in this computerized list, the Secretary of Defense's position was given to two House committees, and appropriate key House leadership.

The first group that drafted that provision was Lockheed. How we can possibly take the Air Force numbers seriously after those revelations, that Lockheed is drafting the Secretary of Defense's positions, and whether the Air Force is writing their "Dear Colleague" letters for Congressmen and peddling them, how you can possibly take their numbers seriously from this point on.

Now I think the documents show a story of a decision that was made against many of the wishes of users of this program. I am very strong on the users. They are going to be the people who have to fly the planes, who are going to have to use the equipment in the battlefield that is delivered. They are going to be the people who count, not the people who are going to be pushing and lobbying this issue on the Hill.

For example, the lobby plan shows that Gen. Jim Allen's statement to Congressman Addabbo's subcommittee on defense, that it was not strong enough on C-5 to the satisfaction of the Pentagon and had to be worked over. The Military Lift Command will be the user. I don't think this is an effective way to buy equipment for our soldiers and taxpayer.

I would also like to point out that these documents were given to me at great personal risk, not for glory and headlines, but out of a sense of loyalty to the people who will use these planes in emergency and to the taxpayer who is paying for an effective defense. I think it is admirable and these people were willing to risk their careers. Unfortunately, they are not able to come forward to Congress any more.

I probably don't need to remind you what happened to the person who came in——

Senator STEVENS. He was just restored with back pay after 5 years.

Ms. RASOR. He lost literally 12 years. He was reinstated, was not given his original job back and it took a court order, threats of a court order to the Air Force to given him his job back. With those kinds of examples, I don't see how you can expect for people to come forward with this kind of information. So they come forward to me.

FINANCIAL RECORD OF C-5

Now another thing I would like to go through very quickly, I hope we don't need to remind you, this plane, C-5 has had a disastrous past, original $2 billion overrun, $1.6 billion wing fix, and an enormous amount of quality problems.

When I was looking at the C-5 wing fix a couple of years ago for another organization, we found what is called the APEX Report done in 1975. The 3-inch thick report of things that had to be fixed on the C-5. It was an Air Force document. We could never get it clear on whether those things were fixed or not.

When the cargo planes crashed in Vietnam, due to a cargo door problem, it was in 1971—the 1971 Air Force document that said that the Air Force engineers knew that this cargo door problem existed, yet they continued to fly the plane.

There were legal suits over this plane, and the Air Force and Lockheed settled out of court for an undisclosed amount and the important part of that was that the APEX Report surfaced during those trials. It is something that was terribly wrong with the plane.

I would also like to go back to the fact that this plane had disasters procurement-wise and technically. I would like to take a look at the list of the people who are responsble for the management team in Lockheed for the C-5A disaster. If you look on page 4 you will see that I went through and looked at the people who were responsible for the C-5 in the past and where they are now. And I think the last four are probably the most telling.

Paul Frech, director of manufacturing at Lockheed-Georgia during C-5 is now corporate vice president of Lockheed Corp.

Robert Ormsby in charge of C-5 engineering at Lockheed-Georgia is not president of Lockheed-Georgia. You heard him speak today. He was in charge of engineering during the time we had all of the wing problems.

If you remember there was an extreme production control problem with the C-5. Vic Alexander was production manager of Lockheed, now he is vice president in charge of operations, Lockheed Corp. Then V. H. Brady, then poduction control division manager at Lockheed-Georgia during the C-5 manufacturing, now is production manager of the Lockheed-Georgia.

We are about to hand over $8 billion to this contractor who has failed in the past and has the same management team intact. Beyond this decision, I would like to go in and talk about what kind of message is this sending to the aerospace industry?

How can you expect that the rest of the contractors are going to come back, give you honest numbers, give you information that has not been doctored, deliver equipment on time and on cost, if when there is a lobbying effort of this magnitude and you go in there and give that $8 billion contract sole-source to these people?

It is the encouragement of the incompetency rather than effectiveness in the Pentagon. The incentive system is turned upside down. If you notice on my testimony on page 5, I won't read the whole statement, but the president of Aerojet-General Corp. in 1971 went through and told exactly what his reaction was at the time of changing the C-5 contract.

He is basically coming back and saying why can't I have this break? What is different about Lockheed than myself? If you go sole-source back to the cargo plane with this kind of failure, with the same managment team, I don't see how you expect the rest of the aerospace industry to deliver as good equipment.

Now I would like to go past all of the pork-barrel politics and take a fresh look at the airlift problem. I want to go past all of the lobbying, past the computer printouts, past the documentation, and show you when this controversy first appeared, I provided Air Force, Lockheed, and Boeing information to several defense analysts who then sat down and did a weapon-system consumer report for me on three major cargo planes.

I would like to submit that report for the record with the understanding, too, that that report was written in early February and some of the situations have changed. My sources used Air Force documentation.

I had two people write the report. I had it reviewed independently by two other people and all of these people have worked in the DOD or Air Force for over 30 years and know quite a bit about planes.

MISSION-CAPABLE RATINGS

Some of the things that they have brought up was that in reliability and maintenance, the 747 and the KC-10 scored far above the C-5. Total hourly maintenance for the C-5 was over two times more expensive than the 747. The C-5 has a much lower mission-capable rating. This is something they didn't bring up today in the hearings that I think you have to consider.

Its mission-capable rating is 60 percent. The 747 and KC-10 are 85 percent. This means the number of C-5's in the budget and the maintenance depots will be far different than the number of C-5's in the air during an emergency when compared with other wide-body alternatives. They are talking about whether the C-5 can fly in and be unloaded. But you have to think how many of those planes are going to be able to fly at all because of their poor mission-capable rate.

Lockheed claims they will make it better. During the Mideast 1975 war, it was 40 percent. Only 40 percent of the planes were mission capable. It doesn't matter how many you can buy if they are sitting in the hangers. The enemy counts planes in the air.

I think when you look at the commercial wide-bodies alternatives and you know that those planes fly consistently and reliable all over the world, it is something very, very serious and we need to think about it.

Other than the outsize category, the 747 carried more U.S. Air Force pallets, jeeps, half-ton trucks and infantry fighting vehicles than the C-5. The 747 and the KC-10 have longer maximum range and faster speed than the C-5.

In my report my sources also looked at the outsize airlift requirements and believed they were inflated because two-thirds of the tonnage to be delivered in the first 6.5 days of the conflict, the computer model for the CMMS did not use the original C-5's exclusively for carrying outsize equipment, which is the only mission that justifies the C-5 at all when compared to other wide-body alternatives, because of their high cost, high breaking down, and one thing you also have to consider is that Congressman Addabbo in his hearings said he thinks the current cost of the C-5 is up to $183 million, far different than the firm fixed-price contract we have gotten.

I wanted to go over a little bit on how I feel what needs to be done.

I think that in light of this kind of shenanigans going on by the DOD, Air Force in collusion with the contractor, that Congress has got to ask some tough questions about this airlift decision, get some real answers, and Congress not tolerate having generals sitting here with viewgraphs and slides who have been briefed by the contractor on what to say. Lockheed sat down and briefed these generals: It completely destroys their credibility.

We have to ask some tough questions. I hope that on the C-5 decision, these documents and this type of lobbying, which is illegal according to law, though never enforced, is looked into beyond this decision. Because if this is the way we are going to buy weapon systems, we will lose the next war. It is a very serious problem.

We do have some solutions and I will go through them very quickly. It is by far the better thing to do to buy commerical airliners instead of the C-5. Also it means using the money to modify the CRAF, which we believe very stongly in. However, I know that it does have problems.

As you remember, the CRAF gives you 14 hours a day utilization of cargo planes. In a wartime situation we will be lucky if the Air Force will be able to reach 8 hours a day using the C-5. Right now they do only 2.5 hours a day in peacetime.

Once again I am talking about they don't count how many planes you put in the budget.

AIR NATIONAL GUARD PURCHASE OF 747'S

Another step we would like to see, after having the CRAF program be successful is to purchase used 747's for the Air National Guard. The Air National Guard can fly for much less than a pilot on active duty since the National Guard already has pilots trained for 747's. They have quite a few pilots that actually fly for the airlines. Why we don't use them as a resource in emergency has not answered.

Also the Air National Guard can maintain the aircraft in a more ready status. If you look at the reliability of the Air National Guard compared to the Regular Air Force you will see they are in a far more ready situation.

We believe you shouldn't buy new 747's unless these other steps have been taken, to fill as much of the cargo requirement as you can with other options I have listed above. We don't believe that you should buy any more airlift for the United States—airlifters for the U.S. Air Force, C-5 or otherwise, because obviously they are not using the C-5 and computer models that come up to you as efficiently, and they could be.

We do need to work on improving the intra-theater airlift problem, that is very obvious in Mr. Ambrose's angry letter to Mr. DeLauer.

So if the Congress is really concerned about rapid deployment, we are only talking about 6 percent of the problem of getting equipment over to, in a rapid deployment force. Only 6 percent is airlift.

Look how much lobbying, time, effort, money has been put on that. That is because it is a pork-barrel issue, because it means jobs and a lot of reputations are at stake.

SEA-LIFT CAPABILITY

But we also have to look at sea-lift capability, and prepositioning and see how those options fit in. I don't think that has ever been adequately addressed. I hope we won't have to go through the whole situation and its sad tale again. We will not be pushed by pork-barrel politics into another disaster.

In a national emergency it is too late to realize that this type of pork-barrel procurement that was revealed to me in these documents will not win wars. What will win wars is buying equipment that is reliable, realistic and that you can purchase enough of them to make a difference.

That concludes my statement, I will be happy to take questions.

[The prepared statement and attachments of Ms. Dina Rasor follow:]

PREPARED STATEMENT OF DINA RASOR

PROJECT DIRECTOR

PROJECT ON MILITARY PROCUREMENT

Mr. Chairman and members of the Committee, thank you for the opportunity to appear before your committee today.

The Project on Military Procurement is a project of the Fund for Constitutional Government, a non-profit, tax-deductible organization. Your committee has heard from many people with varied interests on the subject of our airlift problems. The Project on Military Procurement has no financial or parochial interests in this airlift decision. Our interest is motivated purely on finding the best buy for the taxpayer and the soldier.

We are concerned about several aspects of the Air Force's proposed purchase of 50 new C-5 aircraft. These concerns arise in light of the past history of the C-5, its technical deficits, and the message this purchase will send to the aerospace industry about procurement and the taxpayers of this country about the way the Pentagon buys its weapons.

Since I have begun examining this C-5 purchase, there have been several sources in the Pentagon who have come to me with unclassified documents relating to the C-5. I must tell you that I was shocked to see how the real decision for this purchase was made as compared to the picture that was presented to the Congress and the American public. I would like to submit for the record several of these documents and quickly review the most significant ones:

-- In early January 1982, Air Force Secretary Verne Orr briefed DOD Deputy Secretary Frank Carlucci on all the reasons why the Pentagon should not purchase the C-5. His concerns included the lack of guarantees and the lack of ability to control prices.

The DOD announced its decision to buy C-5's a few weeks later.

-- On February 19, 1982, Army Under Secretary James Ambrose denounced the C-5 decision in a letter to DOD's chief of research, Richard DeLauer, claiming the DOD decision was "perpetuating a scandalous situation."

-- An internal evaluation by the Air Force Office of the Deputy Chief of Staff for Plans and Operations stated that the proposal by the Boeing Company that the Air Force purchase 747F cargo planes instead of C-5's could meet the Air Force's requirements for more airlift.

-- An unclassified cable from the Military Airlift Command to the Pentagon sent in April 1982 stated that "either the C-5B or the B 747 can effectively help reduce the intertheater shortfall at the small increment of airlift proposed."

-- Computerized lobbying action plans put together by the Air Force and Lockheed show that both were actively working together to lobby the Congress for a favorable C-5 decision. These computer printouts show the Air Force drafting "Dear Colleague" letters in hopes that Congressment would sign and distribute them, and Lockheed briefing Air Force witnesses before their Congressional appearances. Each member of Congress in the House of Representatives was targeted in these documents by listing Lockheed subcontractors in their district. In all, this was a game plan on how the Air Force and Lockheed could manipulate each vote for the C-5.

These documents show a story of a decision that was made against the wishes of many of the "users" of this airlift program. The DOD, Air Force, and the contractor, Lockheed, worked in collusion to manipulate a favorable aircraft decision through the Congress. This is a classic example of the military-industrial complex at work.

We believe that this is not the way to buy effective equipment for our soldiers and the taxpayer. Beyond the other C-5 problems of the past (see Appendix A), this decision and how it was carried out shows how parochial interests and porkbarrel politics have thoroughly infected the weapons procurement business. I would like to point out that these documents were given to me at great personal risk-- not for glory or headlines, but out of a sense of loyalty to the people who will use these planes in an emergency, and the taxpayer who is paying for an effective defense.

The Effect Of The C-5 Decision On The Aerospace Industry

I could not possibly outline all the details of the past C-5 procurement disaster in this space. The history has been well documented elsewhere, and I have attached a short history in Appendix A. Some of the highlights include:

* an original $ 2 billion cost overrun,
* a $ 1.6 billion wing fix,
* a plane with chronically high maintenance costs, poor quality control, and continuing engine problems.

During this debate on our airlift problems, very little of the past C-5 history has been reviewed. This is unfortunate because the lessons learned from the past mistakes could prevent another disaster for the taxpayer. I would like to submit for the record a list of the Lockheed management team responsible for the past C-5 fiasco.

Lockheed Management Team: Past and Present Positions.

Lawrence Kitchens

Then: President of Lockheed Georgia Co. during the C-5 manufacturing.
Now: President of the Lockheed Corporation.

Roy Anderson

Then: In charge of finance for Lockheed Georgia Co., including financing of the C-5.
Now: Chairman of the Board of Lockheed Corp.

Robert Fuhrman

Then: President of Lockheed Georgia Co. during the C-5 manufacturing (succeeded by Mr. Kitchens).
Now: President of Lockheed Missile Co., elected Corp. Vice-President of Lockheed Corp.

Paul Frech
  Then: Director of manufacturing at Lockheed Georgia Co. during C-5 manufacturing.
  Now: Corporate Vice-President of Lockheed Corporation.

Vic Alexander
  Then: Production manager for Lockheed Georgia during C-5 manufacturing.
  Now: Vice-President in charge of Operations, Lockheed Corp.

Robert Ormsby
  Then: In charge of C-5 engineering at Lockheed Georgia Co.
  Now: President of Lockheed Georgia Co.

V.H. Brady
  Then: Production control division manager at Lockheed Georgia during the C-5 manufacturing
  Now: Production manager of Lockheed Georgia.

This Lockheed management team is still intact and even elevated to higher positions. The Pentagon is suggesting that we go back to this same contractor sole source. On May 7, 1970, Congressman William Moorhead warned against the performance of Lockheed's management team:

> One has to admire Daniel Haughton, Chairman of the Board of Lockheed, who by sheer guts and bailing wire, has kept his group of incompetents afloat by intimidating the Federal Government with threats of corporate suicide and then walking out with the taxpayers' money.

It is impossible to measure the potentially disasterous effect that rewarding Lockheed for past incompetency will have on the rest of the aerospace industry, not to mention the encouragement of incompetency rather than effectiveness by the Pentagon. The incentive system is turned upside down when a contractor is rewarded with a sole source contract to build the same failed weapon systems.

When the first C-5A contract was in question in 1971, Jack Vollbrecht, President of the Aerojet-General Corporation let the House Administrations Committee know his reactions to these types of actions by the Pentagon:

> I just tell you, gentlemen, you have a good opportunity to make an example of a contractor who is a bellwether in this industry either way and the industry will read it exactly the way you treat them. It is common talk among the industry and they are waiting to see, and don't think they won't read those signs. There is no way you can cover them up. So if you want to continue having troubles with an industry who will come right back and say, "Well, what are you treating me different for? What is different about me? My problems are just as real to me as Lockheed's are to them." I think that is fair. I would expect to be able to come in and say, "My God, we made a horrible mistake," and I'd want to know why you are not going to bail me out. If you say no, I want to know why.

The Congress is about to hand over $ 8 billion to this contractor for the same failed plane. The taxpayer deserves some closer scrutiny for his military investment. In light of the enormous budget deficit facing the government and double digit inflation, the voters will be looking to Congress to find the most effective and efficient solution to our airlift needs.

Evaluating Our Real Airlift Needs

Now I would like to move beyond this example of porkbarrel politics in the airlift decision, and take a fresh look at our airlift needs. When this controversy first appeared, I provided Air Force, Lockheed, and Boeing information to several defense analysts who have evaluated weapon systems for the DOD for many years. I asked them to do a "consumer report" on the three potential military cargo planes, and to examine the Air Force's assumptions of need for airlift. I would like to submit the resulting report for the record, and highlight the main points.

— As far as reliability and maintenace, the 747F and the KC-10 scored far above the C-5. The total hourly maintenance for the C-5 was over two times more expensive than the 747F. The C-5 has a much lower mission capable rating, which means that the number of C-5's in the budget and the maintenance depots will be far different than the number of C-5's in the air during an emergency when compared to the other wide-body alternatives.

- -- Other than the outsize category, the 747F carried more U.S.A.F pallets, jeeps, half-ton trucks, and infantry fighting vehicles than the C-5. The 747F and the KC-10 both have a longer maximum range and a faster average speed than the C-5.

- -- The report found that the outsize airlift requirements appear to be inflated because 2/3 of the outsize tonnage is to be delivered in the first 6.5 days of a conflict. The computer model for the Congressionally Mandated Mobility Study (CMMS) did not use the original 77 C-5's (which the taxpayer just paid $ 1.6 billion to have the wings fixed) exclusively for carrying outsize equipment-- the only mission that justifies the C-5 at all when compared to other widebody alternatives.

The outsize requirements must also be tempered by two other realities of war crisis situations:

- -- In a real crisis situation, many of the troop units and much of their heavy equipment will not be ready to deploy for at least several months-- particularly so in view of current and projected spending on readiness.

- -- In actual wars, most heavy, bulky, low value equipment has always been carried by high tonnage ships, while strategic airlift was properly reserved for light airborne units, high value spares and ordinance, and emergency lift to correct unanticipated, crippling shortages.

What Needs To Be Done

The General Accounting Office has been evaluating airlift for years, and has long advocated the need to buy commercial widebodies. The soldier whose life depends on the equipment delivered to the battlefield and the taxpayer who has been cheated on airlift in the past deserve a level headed, non-parochial decision on this costly program. The Air Force's and the DOD's lack of full disclosure and manipulative actions toward the Congress for a more expensive and less effective system destroys their credibility. We can get reliable and effective airlift at a reasonable cost if the Congress lays aside its parochial interests and asks some tough questions about the Air Force's numbers on airlift and the behavior on the part of Lockheed, the Air Force, and the DOD.

Solutions To Our Airlift Problems

If we want to spend a moderate amount of money on our airlift needs-- not the $ 8 billion requested-- we can improve our airlift capability by :

* Improve inter-continental airlift with the most wartime, long haul tonnage possible for the taxpayer's dollar, which means,

1-- a commercial airliner, not a military one,

2-- which in turn means using the money to modify civilian airliners (CRAF) and let the airlines maintain them, which they may do better than the U.S.A.F. Also, let the airlines pay to keep the pilots proficient in flying these cargo planes. In a rebuttal to our airlift report, Mr. Moseman recommended the acquision of 747F airlift through the CRAF would mean a reduction in operational costs by a factor of five. If the incorporation and effectiveness of CRAF is possible, it would be the best avenue to follow.

3-- We need to remember that CRAF gives us 14 hr/day utilization of cargo planes at this time. In a wartime situation, we will be lucky if the U.S.A.F. will be able to reach 8 hr/ day use of a C-5. They only do 2.5 hr/day in peacetime.

4--Our next step would be the purchase of used 747F's for the Air National Guard. The Air National Guard can fly for much less than a pilot on active duty in the Air Force since the Air National Guard already includes pilots trained for the 747. Also the Air National Guard can maintain the aircraft in a more ready statis.

5-- Only after the conditions of 1 and 2 above are met should we consider buying new 747's for the Reserve and the Air National Guard. About 75 747F's would be sufficient to fill that need.

6-- We should not purchase any more airlifters for the U.S. Air Force-- C-5 or otherwise. They do not know what to do with what they already have. Instead, we should work on improving intra-theater airlift for the Army. We need to buy airlifters that can really land on dirt strips and ones that you can risk losing to a mortar shell-- not a multi-million dollar plane that will overrun and fail to meet military specs.

If the Congress is really concerned about rapid deployment, you should be spending more on our sealift capability and less on the airlift.

It is my hope that this time we will learn from past mistakes and will not be pressured by porkbarrel politics into another disaster for the taxpayer and our national readiness. In a national emergency, it will be too late to realize that porkbarrell procurement will not win wars.

Appendix A

1965	Air Force awards contract to Lockheed over Boeing to build C-5A's.
Jan. 1966	Ernest Fitzgerald visits Lockheed and learns that overhead rates for the program are well above those estimated in the contract. He reports it to his superiors via Office Financial Management's Weekly Staff Digest Report.
Oct. 1966	Lockheed has an overrun of $ 18 million, but solves that by increasing its budget for August-Oct. period.
Nov. 1966	Rising costs show up on System Program papers, but when confronted with it, Lockheed denies there is any overrun and refuses to supply any data.
Dec. 1966	Overrun now up to $ 122 million. Cols. L. Killpack and J. Warren report the overrun to Asst. Secretary L. Marks of the USAF. Col. Killpack is transferred to Vietnam, and Col. Warren to a computer manager position in the Pentagon.
Jan. 1967	The Comptroller of the DOD requests a cost summary from the Air Force. The report shows no overrun at all, makes no mention of Lockheed's $ 212 million "budget increase" and fails to supply most of the data requested. The Comptroller returns it for "reaccomplishment." Lt. Gen. D. Crow, Comptroller of the Air Force Systems Command deletes the $ 212 million overrun from a management summary report because the figures have not been reviewed by proper USAF authorities.
Jan. 1967	Lockheed requests $ 79 million in additional funding.
Sum. 1967	A USAF study group states the Lockheed budgets submitted to the Air Force were "so unrealistic one wonders if they were developed for government consumption."
Nov. 15, 1967	Air Force Chief of Staff Gen. J. McConnell reports to Sec. of Defense McNamara the Air Force has been successful in controlling cost growth in the C-5A program as a result of changes. DOD Comptroller R. Anthony reports an overrun of $ 351 million. Estimate for completion cost is nearly $ 500 million over original estimated cost.

Feb. 1968	Lockheed submits a year-end report to the USAF showing no serious cost problems. A C-5 system Program Office report estimates Lockheed having a potential loss of $ 316 million. Lockheed protests that the estimates are too high.
Mar. 1968	Asst. Sec. of the Air Force for Research and Development A. Flax tells the House Subcommittee on Defense Appropriations that current estimates of C-5A costs are "within range" of the original target and ceiling costs.
Spring 1968	USAF Systems Command finds an overrun of $ 570 million. This is covered up by a program change which increases Lockheed's budget requirements by $ 570 million above earlier estimates.
Summer 1968	DOD Comptroller R. Anthony attempts an audit, but is told by the AF Systems Command and the C-5 System Program Office that the overrun information has been deleted from their reports per direction of higher headquarters. System Program officers tell GAO audit that orders from Asst. Sec. of the AF for Installations and Logistics said the overrun on the C-5A program should not be reflected in routine management type reports.
Nov. 13, 1968	In testimony before the Senate Subcommittee on Economy in Government, A.E. Fitzgerald testifies the projected overrun for the entire C-5A program will reach at least $ 2 billion due to initial underestimation of costs, ineffective cost controls, and corporate strategy. The AF immediately denies the $ 2 billion estimate, but puts the figure at $ 1 billion.
Nov./Dec. 1968	GAO requests cost data and is told it is classified on the grounds that such data might compromise negotiations with Lockheed for a second run of 57 planes.
Jan. 1969	AF agrees to release cost data if GAO agrees not to make them public. GAO does not agree. Asst. Sec. Charles sends GAO a brief and incomplete cost summary esplaining that circumstances of the negotiations make it possible to release the data. The summary and subsequent GAO report relied almost entirely on cost figures supplied by the AF or Lockheed.
Jan. 16, 1969	The AF places its order for 57 more planes just hours before A.E. Fitzgerald is to testify again before Sen. Proxmire's committee.
Jan. 1969	Air Force claims the C-5A will exceed the contractor's proposed performance.
Apr. 1969	Defense Secretary Laird declares that in the future, "full and accurate information on the C-5A and other procurement matters."
June 1969	A.E. Fitzgerald testifies that the C-5 requirements had been relaxed, such as 15% reduction in its gross weight for takeoff and landing on substandard airfields and a 10% decrease in allowable "sink rate" on landing.
July 13, 1969	Wing cracks occur during static ground tests. Air Force Colonel remarks: "The reason the wings came off this aircraft is because we meant for it to come off."
Sept. 1969	Wing fix by Lockheed failed in ground test at only 83% of the plane's load limit. The Air Force did not make this public.
Dec. 1969	GAO finds 25 defects in the C-5.
Dec. 17, 1969	Air Force accepts first C-5 from Lockheed with defects.
Jan. 1970	Second wing crack occurs. Air Force announces wing fix would cost $ 6.5 million. Six months later the estimate rose to $ 15 million.
March/Oct. 1970	C-5 continues to have sporatic failures.
Oct. 18, 1970	First C-5 plane explodes on the runway.
Sept. 1971	Former Lockheed employee Henry Durham testifies before Senator Proxmire's Subcommittee on Priorities and Economy in Government.

	He accuses Lockheed of serious lack of production controls and collusion between the Air Force and Lockheed.
Mar. 1972	GAO confirms Durham's charges and charges the Air Force with $ 1 billion overpayment to Lockheed.
Apr. 7, 1972	Air Force Secretary Seamans voices disappointment in the C-5 and is forced to limit the plane to crisis use due to wing failure.
July 1973	Shortly after the delivery of the last C-5, Lockheed recommends a new wing design.
Apr. 1975	C-5 crashes in Vietnam killing over 200 people including war orphans. A 1971 Air Force study reveals that the Air Force knew about a severe cargo door problem that caused the crash.
Apr. 1975	GAO evaluates the 1973 Mideast Airlift and finds that 60% of the C-5 planes were grounded for repair or maintenance.
Apr. 1975	Air Force study group (APEX) points out serious defects besides the wing in the C-5. The report is not widely circulated.
Apr. 1975	Defense Systems Acquisition Review Council reviewed wing modification for the C-5 by the Air Force and asks the AF to consider alternatives. Air Force does not respond.
Dec. 1975	Air Force awards a contract to Lockheed for $ 28.5 million to initiate design efforts.
June 8, 1976	GAO releases Airlift report and claims that the Air Force has not provided sufficient data to the Congress to properly consider the needs for new/alternative airlift programs. The Air Force makes no response.
Jan. 1980	Final phase of wing fix contract is awarded to Lockheed.
Jan. 8, 1982	Sec. of the Air Force Verne Orr briefs DOD Deputy Sec. Frank Carlucci, advising against buying additional C-5's to help airlift needs.
Jan. 15, 1982	Various newspapers report that DOD Sec. Weinburger has decided to buy 50 more C-5's through a sole source contract. DOD confirms that decision.

ASSESSMENT OF C-5N vs KC-10 AND 747F

WHAT IS THE C-5N?

The C-5N is a C-5A incorporating the new $1.5 billion wing-fix, a sizable number of not yet implemented fixes (known as Engineering Change Proposals), and omitting several of the least useful and most troublesome subsystems of the C-5A.

Subsystems removed are:

- The complex and unreliable multimode radar
- The failure-prone cross-wind landing gear drives, intended for the short, bare strip landing capability that has proven unusuable.

Fixes for currently troublesome components, requiring extensive engineering to implement, include:

- A new model of the existing TF-39 engine
- All-new flight control electronics
- New navigation electronics (TACAN, VOR/ILS)
- New radio equipment (UHF, ADF, HF, IFF)
- Modified landing gear door drives.[1]

The new C-5N specifications proposed by Lockheed are significantly less demanding than the existing specifications for the C-5N. No meaningful guarantees or warranties are being offered by Lockheed.

The C-5N has essentially the same payload (and range) as the C-5A with the wing fix, about 100 tons (2.5 g structural limit) and emergency overload payload (2.25 g structural limit) is 120 tons.*

WHAT IS THE KC-10?

The KC-10 is a derivative of the DC-10-30CF commercial convertible airliner/freighter, modified to carry 18,000 gallons more fuel at the cost of 40% reduction in cargo floor area.

The KC-10 has eliminated the windows and passenger provisions of the commercial DC-10, eliminated the lower level cargo deck and installed fuselage fuel tanks, added a refueling boom and a refueling receptacle, installed military avionics, and strengthened the structure to increase maximum takeoff weights by 18,000 pounds.

The KC-10 can be used either as an in-flight refueling tanker or as an airlifter intermediate in capacity between the C-141 and the C-5. The KC-10 has one side door, 8½ feet high, for loading cargo. Its maximum normal payload is 89 tons with an emergency overload capacity of 102 tons.

WHAT IS THE 747F?

The 747F is the commercial 747-200F airfreighter now in airline use, with several military options offered, including:

- Military radios, TACAN and IFF
- In-flight refueling receptacle
- On-board nose loading ramp and nose-lowering jack

The 747F is compatible with current USAF pallets and USAF loading equipment. The USAF has loaded and used 747 air-freighters (provided through CRAF) to carry military cargoes to Military Aircraft Command bases in the Pacific area since 1973. The 747F is also compatible with commercial airfield loading equipment now available at 120 airports around the world.

The 747 has a nose door for loading vehicles and equipment up to 8 feet high, a side door for 10 feet vehicles and equipment, and two lower deck doors for pallets and bulk cargo.

The aircraft has a normal maximum payload of 135 tons (2.5 g) and an emergency payload (2.25 g) of 175 tons.

WHAT IS THE REAL NEED FOR INTERCONTINENTAL MILITARY AIRLIFT?

The 1981 Pentagon CMMS studies to determine the "requirement" for strategic airlift assume:

- Large forces of 2 to 4 divisions or more ready to move immediately as soon as airlift or sealift arrives.
- A hard and fast requirement to deliver the entire large force very early, usually in 25 or 28 days.
- Artificially high requirements to deliver most (2/3) of the bulkiest and heaviest equipment in the first 6.5 days.

These assumptions are unrelated to real deployments. First, in actual deployments of our forces--whether Korea, Lebanon, Dominican Republic, or Vietnam--the time to get troop units ready to move and to load has always been far longer than the actual transportation time,[2] no matter how constrained our airlift and sealift were at the time. Twenty-five or 30 day deployments of even a two-division mechanized force to the Persian Gulf are unrealistic given current and foreseeable U.S. unit readiness--even with unconstrained airlift and sealift availability.

Second, moving entire mechanized or armored divisions by air is, in fact, slow and impractical simply because each airplane carries so little tonnage compared to a ship. To move a mechanized division by sea takes only 7 to 8 roll-on, roll-off ships, but by air it requires at least 800 C-5 round trips.

The practical and essential need for strategic airlift is quite different than the role assumed by "requirements" studies; it is:

- To move people and to lift units tailored for air deployment, i.e., airborne divisions.
- To provide emergency deliveries to overcome critical item shortages created by the inevitable deployment planning oversights and by the inevitable unforeseen crises of combat. Critical items that could jeopardize an entire RDF expedition range from fuzes to spare engine to antitank ammunition.
- To move high value items--ones too expensive to permit large forward stockpiles--whether jet engines or guided missiles or computers.

This was the primary way airlift was used in Vietnam. During the 1973 Arab-Israeli war, airlift was used mainly for high value spares and critically short supplies such as special purpose ammunition. Little outsize cargo was carried. Only 14 pieces of outsize equipment (four of them tanks) were among the 8,950 tons of material delivered before the cease fire.[3]

HOW DO THE KC-10, 747F AND THE C-5N COMPARE?

The 747F carries substantially more tonnage over longer distances than the C-5N, as shown below:

	747F	C-5N	KC-10
Maximum Payload	135 tons	100 tons	89 tons
Payload at 3100 n.m.[4]	126 tons	94 tons	88 tons
Payload at 5400 n.m.[5]	77 tons	47 tons	48 tons
Payload at 5400 n.m. (hot day, 7500' field)[6]	37 tons	3 tons	21 tons
Maximum range	7850 n.m.	6800 n.m.	9600 n.m.
Maximum no. of USAF pallets	50	36	27
Number of jeeps	40	28	14
Number of 2½ ton trucks at 3100 n.m.	10	9	0
Number of 2½ ton trucks at 5400 n.m.	10	6	0
Number of M2 IFVs @ 3100 nm	4	3	0
Number of M2 IFVs @ 5400 nm	2	1	0
Speed on Average Trip	430 knots	400 knots	425 knots

At relatively short distances, the 747F carries 35% more tonnage than the C-5N; the KC-10 carries almost as much as the C-5. As distances get longer, or as the takeoff field gets hotter and shorter, the 747F and KC-10 advantage increases markedly.

Usable Airfields

The 747F, the KC-10 and the C-5N cannot land on dirt strips nor on temporary runway matting. The C-5 was designed to do so, but tests show that its landing gear suffers serious damage when landing on runway mats. Nor is it conceivable that a $100 million aircraft would be risked in wartime landing on a remote strip where one $75 mortar shell could send it up in flames.

For practical operations from existing bases or commercial fields, the 747F can take off from somewhat shorter fields than the C-5N at equal tonnage or lift greater tonnage from a given length field. The KC-10 also takes off from shorter fields than the C-5, but generally at slightly lower payloads than the C-5.

	747F	C-5N	KC-10
Critical field length required for 94 tons load with enough fuel for 3100 n.m. (59° day)	7700'	9800'	9400' (89 tons)
Same (90° day)	8300'	14,000'	11,200' (89 tons)
Max payload from a 10,000' runway with enough fuel for 4,400 n.m. (80° day)	91 tons	46 tons	62 tons

At the receiving end, the 747F can deliver a 100 ton payload--and the KC-10 can deliver about a 65 ton payload--into a field 4,750 feet long (distance over a 50 foot obstacle, 90°F). Here, the C-5N can land with the same 100 ton payload on a field 1000 feet shorter. But very few fields of under 7,500 feet have the necessary 150 foot wide runways necessary for C-5N, KC-10, or 747F operations, so this is not a major advantage.

In most areas of the world there are vital resources or facilities that the U.S. might wish to defend, there are suprisingly many airfields with runways suitable for KC-10 or 747F operations with at least 50 tons of payload. In the Middle East, for instance, between Egypt and Pakistan there are at least 130 such airfields.

Flying Hours Per Day and Maintenance

The C-5A has had the poorest maintenance and reliability record of any airlifter in USAF service, with only a 48% mission capable rate[7] and 75.6 maintenance manhours per flying hour. An acceptable, reliable airlifter of equal size would have at least 85% mission capable rates and no more than 30 to 35 maintenance manhours per flying hour.

The C-5 fleet has yet to average more than 2½ hours per day utilization for any year period. Few with experience maintaining the C-5 would believe that the fleet could ever sustain a one month wartime surge at eight hours per day.

The 747 and DC-10, by contrast, have satisfactorily met the maintenance and reliability standards set by commercial airlines, standards that are much more stringent than those of military aircraft. Three major operators of 747 freighters are averaging annual (not surge) utilization rates of over 12 hours per day with a 98% schedule reliability. DC-10's in long haul passenger service do even better. Total maintenance costs (including labor and overhead) for these 747 freighters averaged $920 per hour for 1980; for DC-10's airliners, they averaged $540 per hour.

In comparison, the Air Force's hourly cost for C-5A maintenance (excluding base-level labor) was $2,950 per hour in 1981.

The following table presents maintenance and reliability comparisons of the KC-10, 747F, and the C-5N, taking into account for the KC-10 and the 747 the lower skills of Air Force maintenance (compared with commercial standards) and the C-5N's elimination of several of the most troublesome components.

	747F	C-5N	KC-10
Mission capable rate	85%	60%	85%
Maintenance manhours per flying hour	30[9]	65	25[9]
Achievable hours/day for a one month fleet-wide surge	14	10[10]	14
USAF Total hourly maintenance cost (FY 81 $)[12]	$1100	$2600[11]	$700
Hourly Fuel Cost (FY 81 $)	$3900	$3900[11]	$2750[11]

Cost and Schedule

The C-5N is at least 64% more expensive to acquire than the 747F, and at least 114% more expensive than the KC-10, based on official USAF estimates for all three and assuming no overruns. Specifically, the USAF estimate for the 747F with spares is $72 million per aircraft in FY 1981. The comparable KC-10 cost is $55 million. The C-5N is estimated by the USAF at $118 million per aircraft if 137 aircraft are bought.[13]

If, as claimed by the DOD, there is an urgent need to enhance U.S. airlift as quickly as possible, then additional KC-10's over and above the 44 proposed, provide that enhancement two years earlier than the C-5N. The 747F provides enhanced airlift three years earlier than the C-5N (since the entire C-5N production line must be reconstructed). Boeing can deliver its first 747F from the existing production line in 12 months after contract go-ahead with 14 delivered over the subsequent year. The USAF estimates that Lockheed's first C-5N delivery will be after September 1986 with the first 12 delivery of add-on KC-10's above the present program within 18 to 24 months after contract go-ahead.

DOES THE TAXPAYER AND THE DOD GET MORE AIRLIFT WITH THE C-5N OR THE COMMERCIAL WIDEBODIES?

Under the easiest Middle East airlift conditions--a longest leg of 3100 miles through the Azores--each 747F delivers 2.0 times as many tons per day as the C-5N while each KC-10 delivers 1.4 times as many tons per day.14

As the lift conditions become more trying, the 747F advantage increases. For a 5400 mile direct delivery to Tel Aviv (with no runway constraints), each 747F delivers 2.5 times more tons per day then the C-5N and each KC-10 delivers 1.5 times more tons. If the loading point is the 7500 foot runway at Pope AFB under summertime conditions, then the 747F advantage increases to 19 to 1 in tons per day and the KC-10's advantage reaches 10 to 1.

At the receiving end, there is not much difference in the airfields that all three aircraft can deliver to--all require well-secured, established fields with wide concrete runways and large concrete unloading areas. The KC-10 can use runways and unloading areas about 20% narrower than the other two.

The C-5N has a real advantage in carrying essentially all the Army's outsize equipment. But the 747F carries over 15,000 of the 19,750 vehicles in the DOD's Heavy Deployment Force, including about 1300 in the outsize category. The KC-10 has a disadvantage in that it carries only about 8,000 of the Heavy Deployment Force's vehicles.

The "requirement" for outsized lift is inflated in the DOD deployment studies by the artificial expedient of requiring 2/3 of the outsize tonnage to be delivered in the first 6½ days. The urgency of this early delivery is questionable: the outsize equipment includes less than essential items such as bakery trailers and asphalt driers, easily-deferred items such as heavy engineer dump trucks and graders, and equipment that may never be procured at all such as the failure-ridden M2 Infantry Fighting Vehicle. Once these artificialities are taken into account, it becomes clear that the existing 77 C-5's together with some new commercial wide body airlifters provide more than enough outsize capability to meet the deployment "requirement".

In addition, the airlift "requirements" approach needs to be tempered by two facts:

- In a real crisis situation, many of the troop units and much of their heavy equipment won't be ready to deploy for at least several months--particularly so in view of current and projected spending on readiness.
- In actual wars, most heavy, bulky, low-value equipment has always been carried by high tonnage ships while strategic airlift was properly reserved for light airborne units, high value spares and ordnance, and emergency lift to correct unanticipated, crippling shortages. The reasons for this are as sound today as they were during the Vietnam and Yom Kippur War.

Given these considerations it appears to be a serious mistake to forego the possibility of buying more airfreighters and many times more tonnage.

Just how much capability is the DOD foregoing for each C-5N it buys? For each $118 million C-5N, the taxpayer could be getting 1 2/3 747F's or over two KC-10's. These KC-10's would deliver three times as much tonnage per day, assuming the lowest possible C-5 price and an easy 3100 n.m. deployment leg.

Considering a 5400 n.m. deployment and the more likely C-5N price of $137 million,[13] the KC-10's advantage grows to 3.8 times as much tons per day at equal investment cost. The 747's advantage is 4.7 times as many tons delivered as an equal cost buy of C-5.

Between the 747F and the KC-10A, the 747 appears to be a somewhat better choice, in part because it carries slightly more tonnage per dollar and because it has the door and floor space to carry a substantially wider variety of vehicles than the KC-10.

But between the two commercial wide-bodies and the C-5N the choice is much clearer: for every C-5N bought, the Department of Defense loses a factor fo 3.0 to 4.7 in tonnage delivered per day--a disservice to the taxpayer and to the nation.

[1] Above details based on 20 Jan. 1982 Draft Report, Ad Hoc Airlift Enhancement Committee, USAF

[2] Excepting Airborne Division

[3] Airlift Operations of the Military Airlift Command During the 1973 Middle East War, GAO, April, 1975

[4] 3100 n.m. is the longest leg on a deployment to the Middle East if Portugal permits a refueling stop in the Azores.

[5] 5400 n.m. is the non-stop distance to Tel Aviv, assuming refueling in the Azores is denied.

[6] This represents a summer deployment from Pope Air Force Base (94° F) to Tel Aviv, non-stop.

[7] During the 1973 Israeli airlift, C-5's had only a 40% mission capable rate (GAO)

[8] USAF official statements

[9] Based on USAF figures of 24 for the C-130 and 25 for the larger C-141.

[10] The USAF claims 12.5 hours/day is feasible with extra spares and extra maintenance personnel. Given the current C-5 maintenance experience, 10 hours/day appears optimistic for an improved C-5.

[11] USAF official statements

[12] Excludes base level military labor costs

[13] All costs based on the USAF airlift options briefing presented by the Secretary of the Air Force to the DOD. The USAF estimate is $14.3 billion to $15.4 billion for 137 C-5N's, plus 5% for engineering change order costs and management reserve. If these figures were adjusted for the currently-proposed smaller 50 aircraft buy, then the $118 million should be increased to $137 million assuming a 90% cumulative learning curve.

[14] Ten miles per day equals tons x hours/day x n.m./hour. The 747F carries 126/94 more tons, flies 14/10 more hours per day and flies 430/400 times as fast (using accepted average or "block" speeds in n.m. per hour). The corresponding KC-10 to C-5 ratios are $\frac{88}{94} \times \frac{14}{10} \times \frac{425}{400}$

EXCERPT FROM *Congressional Record* (June 22, 1982) (H 3797 — H 3798)

C-5B Team Actions

Action:05/24 AF.

Distribute firm written Air Force position on C-5 plans.

Status: 5/24 In work.

6/4 Sec Orr letter to House Committee Chairman. Complete.

Action: 05/24 AF.

Provide firm Sec Def position to 2 House Committees plus appropriate Key House leadership.

Status: 5/24 LK draft provided.

6/2 AF draft to Sec Def for approval.

6/4 Sec Defense signed letter to Price, Dickinson, Whitten, Addabbo, Edwards and Michel.

6/7 Signed & released (Does not address 747). Complete.

Action: 05/24 AF.

Get strong JCS endorsement ltr signed by appropriate members.

Status: 5/26 In work by Air Force.

AF Chief of Staff/Vice Ch. decided not required in lieu of Sec. Defense/AF letter. Complete.

Action: 05/24 AF.

Get Force & Operational Cmdrs endorsement letters as appropriate.

Status: 5/26 In work by Air Force.

6/14 RDJTF letters in work.

Action: 05/24 AF, DoD.

Obtain White House L&L effort on House Committees and member commitments.

Status: 6/4 Draft letter to AF/CUA for White House use.

6/11 In Carlucci office for review and approval.

6/14 Letter in NSC.

Action: 05/24 AF, DoD.

Elevate witness level for HAC & HASC hearings.

Status: 5/26 AF/DoD trying to get Carlucci, Lew Allen, Gabriel, Jim Allen, Vessey, P.X. Kelly, and Kelly Burke for hearings. Complete.

Action: 05/24 AF.

Get Kingston/Starry up to speed for 5/25 hearings.

Status: 5/25 Closed.

Action: 05/24 AF, DoD.

Need Sec Def and Sec AF personal effort on Addabbo, Edwards, Dickinson.

Status: 6/3 Sec AF saw Dickinson & Edwards—no firm commitment.

Action: 05/24 AF, DoD.

One on one contacts to provide data and obtain support from Staffers like Pete Murphy, Adam Klein, Judd White, John Ford & others.

Status: 6/4 Klein—contacted (maybe), White—contacted (negative).

6/11 Kelly Burke to contact White and Klein.

6/15 Hecker to contact White and Klein.

Action: 05/26 AF.

Work specific assignments and get member to member commitments in HAC, HASC and other members.

Status: 6/15 Gen. Hecker to see Rudd, Skelton and Ray McGrath.

Action: 05/26 DoD.

Work specific assignments and get member to member commitments in HAC, HASC and other members.

Action: 05/26 LK.

Work specific assignments to get member to member commitments in HAC, HASC and other members.

Action: 05/26 AF, DoD.

Energize all military associations and obtain leadership and "back home" support.

Status: Open. LL: Issue too split by contractors.

Action: 05/26 AF, DoD.

Get non-Defense Committee Chairman support (like on B-1).

Status: 6/4 AF draft "soft sell" Dear Colleague letter.

6/8 Attempt to have non-defense committee chairman sign letter.

6/9 Draft provided to House Liaison Office.

Action: 05/26 AF.

Sec AF talk to Jack Marsh.

Status: 6/3 Draft Sec AF ltr to Marsh in work.

6/4 Sec AF & Sec Marsh discussed issue. Complete.

Action: 05/26 DoD.

P.X. Kelly seek Sec Nav endorsement.

Status: 6/11 Draft letter for Sec Nav signature in his office.

Action: 05/26 AF.

Russ Hale get support from Charlie Bennett.

Status: 6/4 No contact.

6/8 Hale visited Bennett—"C-5 in trouble".

Action: 05/26 AF.

Work key members Badham, Cheney, Whitten, O'Neill and other bi-partisan leaders to support DoD proposal.

Action: 05/26 AF.

Schedule C-5 and fire power combat load for Congressional viewing at Andrews. Offer Boeing opportunity to display 747 freighter and handling equipment at same time.

Status: 6/8 Air Staff, Army Staff and MAC task for display 14-16 June. Message prepared.

6/11 Have since decided to have 747 airfreighter there if Boeing will bring. All displays will be static-no Demo's. Also, letter of invitation to see display being sent to all members and staff.

Action: 05/26 AF.

1. Lay out complete long range plan for airlift to show fit of C-5B and related R & D, full scale development & production of C-17 type aircraft.

2. Clear up impression that C-5B is an interim actions.

Status: AF/RDQL charts provided. Complete.

Action: 05/26 AF DoD.

Prepare paper and witnesses to make it clear C-5B has high priority and how it relates & fits the POM planning for C-5B and C-17 type aircraft.

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Status: 6/4 OSD "Murder Board" to insure witnesses understand DoD position.

6/11 Q & A preparation underway for HASC hearing by AF/DoD and LK.

Action: 05/26 AF.

1. Prepare paper and witnesses to highlight that Boeing's computer scenario is an isolated case study and takes 28 days for closure.

2. Show closure span for 747 in other scenarios vs C-5.

Status: 6/7 AF witnesses prepared with Chief of Staff for hearing. Complete.

Action: 05/26 AF.

Prepare simple and thorough explanation on management of 77 C-5A aircraft for witnesses.

Status: 5/27 SAF/ALG discuss with MAC; answer difficult.

Action: 05/26 LK, DoD/AF.

Maintain database and coordination on contacts and commitments for tally count and further actions.

Status: 6/1 LK computer database in place and being statused.

Action: 05/26 LK.

Have Andy Young work caucus.

Have Tom Hartnett and McCurdy work freshman.

Have Evans, Beard & Gingrich work moderates.

Action: 05/26 LK.

Get major subcontractors on board and working.

Status: Closed. Working hard.

Action: 05/26 LK.

Ltr from Chrmn LK to Airlines including widebody aircraft owners performing military contract hauls.

Asked for position.

Status: 6/4 Ltr sent. Awaiting response.

Action: 05/27 AF.

Get P.X. Kelly to see Edwards (McManus says he will).

Action: 05/27 AF.

Provide McDade data on CRAF and C-17 plans. (McManus thinks he is on board).

Action: 05/27 AF.

Moseman see Pete Murphy on CRAF and C-17.

Action: 05/27 DoD, AF/LK.

Develop list of members that Sec Def, Dep Sec Def, Sec AF, Chief of Staff AF, Lloyd and Hecker should see or call.

Status: Continuing.

Action: 05/27 AF.

Give Hartnett briefing and papers to use with freshmen.

Action: 05/27 LK.

Get Murtha and Daniel to see McDade.

Action: 05/27 LK, AF.

Get Chappell and Hefner to see Young.

Action: 05/27 LK, AF.

Get Hefner and Montgomery to see Whitten.

Action: 06/01 AF.

Think of alternatives for 747 if any, in the event committees press. (Don't weaken need for C-5B).

Status: 6/9 Position is—"part of CRAF" Complete.

Action: 06/01 AF, DoD.

Consider ways to obtain support of DoD position from prime contractors and subcontractors like E-Systems, Vought, Northrop, P & W, and Fairchild.

Status: 6/4 DoD & AF have under consideration.

Action: 06/01 AF.

Gen. O'Malley to see Bill Alexander (AR) and Dan Rostenkowski (IL).

Action: 06/01 AF.

Develop data on: 1. MAC ct. haul; 2. CRAF aircraft availability; and 3. Point paper on CRAF.

Status: 6/3 1. and 2. available. 3. Draft prepared.

6/4 Complete.

Action: 06/01 LK.

Member to request comments from AF on Dicks' letter.

Status: 6/3 Montgomery did.

6.4 AF response in work.

6/11 Draft prepared.

Action: 06/02 AF.

After Sec Def letter released, get AF Sec letter and AF Chief letters taking on 747 data and aircraft as an alternative to C-5B.

Status: 6/4 Drafts prepared.

6/7 Sec AF ltr 4 Jun sent to Addabbo and Price. Complete.

Action: 06/02 AF.

One on one contacts with Glenn Anderson (CA), Joe Moakley (MA) and entire NY delegation.

Status: Hecker 6/15.

Action: 06/02 DoD.

Al Barry to contact Wortley (NY), Solomon (NY), Kemp (NY) and Martin (NY).

Action: 06/02 AF, DoD.

Talk to Gen. Meyer for Army letter supporting C-5B.

Status: Sec. of Army letter. Complete.

Action: 06/02 AF.

Get Altus AFB Cmdr. to call McCurdy.

Status: B/Q Brown called Col. Jay; however Gen. J. R. Allen will talk to McCurdy 8 June 82.

6/8 McCurdy not committed—Wait and listen. Complete.

Action: 06/03 AF, DoD.

Get Sec Def to discuss C-5B needs at a House leadership breakfast.

Status: Will do prior to authorization bill vote.

Action: 06/03 AF, DoD.

Agreed must strategize to concentrate on key points: 1. $6B savings claim, 2. Added early outlays for 747, 3. Limited 747 military utility, 4. 747 capab. avail. in CRAF-need more outsize in military inventory, 5. Oppos. contr. motivation & their subcontr. commer. efforts vs their claim of helping 'some' airlines, 6. Clear up C-17 issue.

Status: All issues addressed in various Committee letters. Complete.

Action: 06/03 AF.

Get feedback from Gen. Jim Allen contacts with Daniel, McCurdy, Jim Wright, Hartnett, Dickinson, and Robinson.

Status: 6/9 Per Gen. Jim Allen: 1) Hartnett—ok 2) Edwards—non committal—questionis re C-17 IOC 3) Robinson—ok 4) Hopkins—ok 5) McCurdy—wait and listen 6) Jim Wright—If HASC strong will work members 7) Dickinson—Non committal—if HASC strong then he will get full Committee support on floor. Complete.

Action: 06/03 LK.

On release Sec Def letter, develop dear colleague letter.

Status: 6/7 Draft complete—in HLO.

Action: 06/03 LK.

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Effort to dissuade ATA as a body from lobbying for 747.

Status: 6/4 Contacts made & opposing airlines convinced ATA board not to take a position. (Individual airlines will probably lobby 747.)

6/4 Complete.

Action: 06/04 AF, DoD.

Consider and counter the image effect of one contractor disputing Military requirements and strategy endorsed by the Administration and the Pentagon.

Action: 06/04 AF.

Provide to LOK composite pictures of C-5 with 3 Chinook helicopters and C-5 with 6 Blackhawk helicopters.

Status: Will do pictures at Andrews this week.

Action: 06/08 AF.

Gen. Hecker to see Cong. Rudd (Ariz.).

Gen. Hecker to see Cong. Fuqua (Fla.).

Status: Mtg scheduled 6/15.

Action: 06/08 AF.

Col. Paul McManus to see Cong. Flippo (Ala.).

Status: 6/8 will meet 6/10.

Action: 06/08 AF.

Refute in testimony McDonald Douglas claim of C-17 IOC 18 months after first C-5 off line.

Status: Working.

Action: 06/08 AF.

Provide comments to LK on short CRAF paper.

Status: Provided to Lloyd Moseman.

Action: 06/08 AF.

Provide press package of letters for Thurs. press meeting.

Status: Complete.

Action: 06/08 LK.

Provide on 06/08/82 Q & A for Subcommittee hearings.

Status: 6/7 Witnesses briefed.

6/11 Q & A for 14th meeting in process.

Action: 06/08 LK.

Provide copy of Rivlin CBO ltr. to AF.

Status: 6/9 Provided to OSD/LA & Dep Sec Def. Complete.

Action: 06/09 Af.

Schedule aircraft Cmdr. & Loadmaster for hearings.

Status: 6/11 Have seen Cong. Fuqua & Daniel. Will try to schedule for Badham, Stratton, Dickinson, Bennett, Cheney, Glenn Anderson and others. Will attend hearings per Dan Daniel request. Complete.

Action: 06/09 AF.

Work on Dear Colleague ltr that other Committee Chairman may be willing to sign.

Action: 06/09 LK.

Get Forbes article and CBO letter into record.

Action: 06/09 LK.

Seek appointments to see Graham and Jim Howard.

Action: 06/10 RRA LOK.

1. Brief Congressman John Breaux during week of 6/14—at his request to Naef on 6/9.

2. Be sure Breaux and Alice Peterson (Staff) are aware of opportunity to visit C5 at Andrews AFB.

Action: 06/10 AF.

Prepare a letter covering Cap's and Frank's letters and a bottom line position (as per LOK's discussion with Rep. Heftel).

Status: 6/11 Ltr in process for all members, Will be delivered 6/16. Complete.

Action: 06/11 GD.

Work on Levin and ask him to work liberals. Also work Udall.

Provide list and work all members (approx. 60) in their plant locations and areas.

Also send note to the same 60 AA's regarding attendance at C-5 Demo.

Action: 06/11 LK.

Develop target list of members. Staff to be invited by AF L&L to C-5 Demo. TELL AF.

Action: 06/11 AF.

Pickup Key Points from SASC hearing and provide to Dan Daniel for use in HASC hearing.

Status: Delivered 6/14. Complete.

Action: 06/11 AF.

Ask Frank Carlucci or White House to call Edwards.

Action: 06/14 LF.

Get picture of "off runway" tests of C-5 to witnesses prior to Tuesday hearing. (Col. Paul Godfrey who ran tests will be in audience and he can be called upon by a member.)

Action: 06/14 AF.

Get Chief to sign letter to all Congressmen. (Have draft)

Action: 06/14 AF.

Get draft "Dear Colleague" letter to Dan Daniel per request (Relative to Loadmaster, etc. opinions).

Action: 06/14 LK.

Get Q & A to members of HASC. ALSO SEC ARMY (Marsh) LTR.

Action: 06/14 LK.

Get AF ltr to Sonny Montgomery—responding to Dicks points—distributed to members.

Action: 06/14 AF.

Gen. Hecker to see Staffers—White, Chase and Klein.

Action: 06/14 AF.

Need Gen. Jim Allen testimony to be strong on C-5 & no 747 (Prepared statement doesn't cover).

Action: 06/14 LK, AF.

Each try to get O'Neill, Fuqua, Holt, Schulze & Taylor out to see aircraft at Andrews.

Action: 06/14 LK.

Get specific members armed with responses to "dirty questions"—i.e., overruns; bad wing; loan guarantee; 9 yr old facility and restart problems, etc.

Action: 06/14 AF.

Need heavy hitter to see Mel Price in addition to Jim Allen visit. Need to fix perception that AF not fighting for the C-5. If they want it fight for it. He will support Air Force in what it wants.●

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HOUSE APPROPRIATIONS COMMITTEE, JUNE 14, 1982, 19:12

Member	Contactor contacts	Position	Member contacts	Position	Further actions
Addabbo, Joseph P. (D-NY) 2256R 225-3461 CHAC-Def. S/C-Chairman).	LOK	U	Ginn		Carlucci 1 on 1. Orr, 1 on 1. Against C-5 in fiscal year 1982 markup.
Gen. Dyn. (GELAC)	Blackshaw	U			More work to swing.
Colt Indust. (GELAC).	Bolles				Will contact.
Gen. Dyn. (GELAC)	Stirk				"Buy both C-5's and 747's" RKC: see Seelmyer (A/A).
Akaka, Daniel K. (Staff D-WI) 1510L 225-4906.	RVO	Chappell			Have Ginn contact.
Alexander, Bill (D-AR) 201C 225-4076.			Chappell		Gen. O'Malley see.
BEL Elect. (LMSC)	Brown				Contacted June 8.
Gen. Dyn. (GELAC)	Stirk	U			"Leaning C-5."
AuCoin, Les. (Staff) (D-OR) 2446R 225-0855.	RBO	O	Barnard		Signed Dicks letter.
Colt Indust. (GELAC).	Bolles				Will contact.
Benjamin, Jr., Adam (D-IN) 410C 225-2461.			Barnard		
Colt Indust. (GELAC).	Bolles				Will contact.
Bevill, Tom	RBO	U	Chappell		RKC-RAA; see.
Boggs, Lindy (D-LA) 2353R 225-6636.	RBO	U	Chappell Jenkins Fowler		"Help Airlines" Coleman: see.
Boland, Edward P. (D-MA) 2426R 225-5601.			Fowler		
Gen. Elec. (GELAC).	Patterson				Will contact.
AVCO (GELAC)	Kelly				Will contact.
Burgener, Clair W. (R-CA) 343C 225-3906.	LOK	U	McDonald		Need subcontractor calls or wires, Rohr and G. D. Need member/member call and commitment.
Gen. Dyn. (GELAC)	Stirk	C			
Campbell, Jr., Carroll A. (R-SC) 408C 225-6030.	RBO	U	Beard/McDonald		Get C-5 supplier subcontractor list.
Gen. Elec. (GELAC).	Levine				Will contract.
Chappell, Jr., Bill (D-FL) 2468R 225-4035.	RBO	S	T.F.M	C	For C-5 in fiscal year 1982. Work other member.
AVCO (GELAC)	Tuttle	S		C	Give him list. See Young.
Conte, Silvio (R-MA) 2300R 225-5335.			Barnard		Against C-5 in markup.
AVCO (GELAC)	Tuttle	S			RKC: will see.
AVCO (GELAC)	Kelly	U			

HOUSE APPROPRIATIONS COMMITTEE, JUNE 14, 1982, 19:12—Continued

Member	Contactor contacts	Position	Member contacts	Position	Further actions
Gen. Elec. (GELAC).	Patterson				Will contact.
Coughlin, Lawrence (Staff) (R-PA) 2467R 225-6111.	RBO	U	T. Evans		RKC: to see.
Dicks, Norman D. (D-WA) 1122L 225-5916.	RRA	O			Colleague letter.
Dixon, Julian C. (D-CA) 423C 225-7084.	JWC	U			Les Shaw contact.
Colt Indust. (GELAC).	Botsford	U			
Tiger Airlines	Reiter				Will contact.
Dwyer, Bernard J. (D-NJ) 437C 225-6301.					
Early, Joseph D., (D-MA) 2349R 225-6101.	RBO	U	Jenkins		
Gen. Elec. (GELAC).	Patterson				Will contact.
AVCO (GELAC)	Kelly				Will contact.
Edwards, Jack (R-AL) 2369R 225-4931.	RBO	U	Jenkins		Against C-5 fiscal year 1982. Member contact. P.X. Kely see. Sec. Def., Sec. ??????.
Gen. Dyn. (GELAC)	Blackshaw	U			
Air Force	Gen. Allen	U			6/9—"Strong pro C-17." Seems OK on SL??????
Gen. Dyn. (GELAC)	Stirk	U			
Consultant (CORLAC).	Kendall	U			
Edwards, Mickey (Staff) (R-OK) 208C 225-2132.	RBO	U			
Fazio, Victor H. (D-CA) 1421L 225-5716.			Brinkley		
Clot Indust. (GELAC).	Bolles	S			
Gen. Dyn. (GELAC)	Strik	S			
Ginn, Bo (D-GA) 2135R 225-5831.	RBO	S	T.F.M.	C	Work boll weavils Work Addabbo, Hefner Edwards, Dickinson and Wright.
Gray III, William H. (D-PA) 429C 225-4001 Colt Indust. (GELAC).	Bolles		Fowler		Will contact.
Green, Bill (R-NY) 1417L 225-2436.	RBO	U	Gingrich		AF/DoD contact.
Marsh McLennan (CALAC).	Regan				Has contacted.
Hefner, W. G. (Bill) (D-NC) 21651R 225-3715.	RBO	S	Jenkins		For C-5/fiscal year 1982. Arrange visit to Member/member call.
Gen. Dyn. (GELCA)	Blackshaw	S			

HOUSE APPROPRIATIONS COMMITTEE, JUNE 14, 1982, 19:12—Continued

Member	Contactor contacts	Position	Member contacts	Position	Further actions
Gen. Elec. (GELAC).	Levine	S			See Young and White.
Gen. Syn. (GELAC)	Stirk	S			
Hightower, Jack (D-TX) 2348R 225-3706.	RBO	U	Chappell/Jenkins		
Menasco (GELAC)	Hawthorne				Letter sent May 2.
Kemp, Jack (R-NY) 2235R 225-5265.	RKC	S	McDonald		No further contact.
Lehman, William (D-FL) 2347R 225-4211.	RBO	U	Brinkley		
Lewis, Jerry (R-CA) 327C 225-5861.	EJS	U	McDonald		(See Cont. Info. Form) (Rep. Denny Smith—or comments.)
Berry Const. (LAS)	Greene				Will write and meet with.
Livingston, Bob (R-LA) 206C 225-3015.	RBO, CBM	U	Chappell/Jenkins		Will contact.
Loeffler, Tom (R-TX) 1212L 225-4236.	RKC/RBO	S	McDonald		RKC: floor debate support. Coord. with White House Leg. Staff and GA deleg.
Menasco (GELAC)	Hawthorne				Letter sent May 25.
Long, Clarence D. (Staff) (D-MD) 2405R 225-3061.	RBO	U			Contract Long directly. Sandt/May show tape. Wheel load comparison.
Colt Indust. (GELAC).	Bolles				Will contact.
McDade, Joseph M. (R-PAO 2370R 225-3731).	LOK	U	Ginn		Need Ginn to work him.
AVCO (GELAC)	Tuttle	S			AF see.
AF L&L		S			Murtha/Daniel see.
AVOC (GELAC)	Kelly	S			
Gen. Dyn. (GELAC)	Stirk, Sec. Coleman	U			
Consultant (CORLAC).	Kendall	U			Will contact.
McHugh, Matthew F. (Staff) (D-NY) 306C 225-6335.	RBO	U	Brinkley		DOD/AF to see.
Colt Indust. (GELAC).	Bolles				Will contact.
Gen. Elect. (GELAC).	Patterson				Will contact.
Miller, Clarence E. (R-OH) 2208R 225-5131.			Brinkley		
Gen. Elec. (GELAC).	Beech				Will contact.
Murtha, John P. (D-PA) 2423R 225-2065.	RBO	S	T.F.M.	C	For C-5/fiscal year 1982. Member/member call. Work on others.
AVCO (GELAC)	Tuttle	S			See McDate.
Myers, John T. (R-IN) 2301R 225-5805.	LOK	U	Brinkley		Member/member.

HOUSE APPROPRIATIONS COMMITTEE, JUNE 14, 1982, 19:12—Continued

Member	Contactor contacts	Position	Member contacts	Position	Further actions
Gen. Dyn. (GELAC)	Stirk	S			
Nacher, Willian H. (D-KY) 233R 225-3501.			Beard		
Gen. Elec. (GELAC).	Levine				Will contact.
Colt Indust. (GELAC).	Bolles				Will contact.
Honeywell (GELAC).	Spring				Will contact.
Sundstrand (GELAC).	Hills	S			
Consultant (CORLAC).	Kendall				Will contact.
Obey, David R. (Staff) (D-WI) 2230R 225-3365.	RBO	U			Roberts: Proxmire response and copy of CBO letter re: misuse/data.
Porter, John E. (R-IL) 1529L 225-4835.	RBO	U	Gingrich		Asked about mix of C-5's and 747's.
Sundstrand (GELAC).	Hills	U			
Singer (GALAC)	Brett				Has contacted.
Pursell, Carl D. (R-MI) 1414L 225-4401.			T. Evans		
Consultant (CORLAC).	Kendall				Will contact.
Regula, Ralph S. (R-OH) 2209R 225-3876.	LOK	U	T. Evans		Member to member commitment.
Colt Indust. (GELAC).	Botsford	U			
Gen. Elec. (GELAC).	Beech				Will contact.
Robinson, J. Kenneth (R-VA) 2233R 225-6561.	RBO	U	McDonald		Against C-5/fiscal year 1982 makeup. White paper to answer Jackson's points.
Air Force	Gen. Allen				June 8.
Gen. Dyn (GELAC)	Stirk				"Buy both C-5's and 747's.
Roybal, Edward R. (D-CA) 2211R 225-6235.					
Rudd, Eldon (R-AZ) 1110L 225-3361.	LOK, RKC (6/10)	U, O	McDonald		Member to member contact. Give him Weinberger and Orr letters.
Garrett (GELAC)	Ne Smith	U			
Miller & Chevalier	O'Conner				Will contact.
Air Force	Gen. Hecker				Was to see June 10.
Gen. Dyn. (GELAC)	Stirk	U			
Colt Indust. (GELAC).	Bolles	U			
Sabo, Martin O. (D-MN) 426C 225-4755.					Will contact.
Honeywell (GELAC).	Spring				Will contact.

HOUSE APPROPRIATIONS COMMITTEE, JUNE 14, 1982, 19:12—Continued

Member	Contactor contacts	Position	Member contacts	Position	Further actions
Smith, Neal (D-IA) 2373R 225-4426.			Brinkley		
Smith, Virginia (R-NE) 2202R 225-6434.			McDonald		
Colt Indust. (GELAC).	Bolles				Will contact.
Stokes, Louis (Staff) (D-OH) 2465R 225-7032.	RBO	U			
Gen. Elec. (GELAC).	Levine				Will contact.
Pheumo Corp. (GELAC).	Wehrenberg				Will contact.
Traxler, Sob (D-MI) 2448R 225-2806.	RBO	U	Brinkley		
Watkins, Wes (D-TK) 137C 225-4565.	RBO	U	Jenkins		Letter explaining closure of McAlister, hope for reopening AF: contact.
Whitten, Jamie L. (D-MS) 2314R 225-4306 (HAC-Chairman).	RBO	U	Montgomery		For C–5/fiscal year 1982 markup. Air Force see Hefner and Montgomery see.
Gen. Elec. (GELAC).	Levine				Will contact.
IAM (GELAC)	Kelly	S			Will work on Dickinson.
Air Force		S			
Cold Indust. (GELAC).	Bolles	S			
Wilson, Charles (D-TX) 1214L 225-2401.	RBO	S	Jenkins		Member/member commit. If with us, work others.
Menasco (GELAC)	Hawthorne				Letter sent May 25. Absent: fiscal year 1982 C–5 vote.
Yates, Sidney R. (D-IL) 2234R 225-2111.	RBO	O			
Young, C. W. Bill (R-FL) 2266R 225-5961.	RBO	U	McDonald		Field length reqmts. to offset earlier AF C–X input. M/M commit.
Gen. Dyn. (GELAC)	Blackshaw	S			Chappell/Hefner see.
Honeywell (GELAC).	Spring				Will contact.
Gen Dyn. (GELAC)	Stirk	U			
OTHER CONTACTS					
Allen, George Prof. Staff (Min.-HAC Def.S/C).	RBO				Member contact. AF work on CRAF story.
Barrett, Arch Prof. Staff (HASC—staff).	RBO	S			
Battista, Tony Prof. Staff (HASC).		S			
Chase, Al Prof. Staff (HASC—staff).	RMT	S			

HOUSE APPROPRIATIONS COMMITTEE, JUNE 14, 1982, 19:12—Continued

Member	Contactor contacts	Position	Member contacts	Position	Further actions
Cooper, Tom Prof. Staff (HASC—staff).	RBO	S			
Duberstein, Kenneth (Asst. to the Pres.).	RKC	S			Week of June 1: Brinkley (GA delegation) re: budget. lpg 747 Q&A.

S=support, U=undecided, O=opposed, and C=committed.

Note.—Additional material submitted for inclusion at this point will not be made a part of the record. It will, however, be retained by the subcommittee in its files.

NEED FOR C-17

Mr. STEVENS. We thank you for taking the time to present it. I apologize for the problem. We have got too many things scheduled at one time.

I am certain that there would be members who might have some questions about your statement. I am lucky that I don't have any provincial procurement problems so I don't really look at it from the point of view of jobs or anything else. I just look at it from the point of view of the mission that has to be done.

I am sorry to say I disagree with you. I think the C-17 is needed badly. So, we—but we will review the comments you made. There are some items there that have not been brought to my attention, particularly the 1975 study that GAO did, which we will dig out and review. If I saw it back then, I certainly didn't remember it in this connection.

But I do thank you for your contribution. We will be studying it again. We are dependent, of course, upon what happens in the House in the next few weeks in terms of what we will be able to deal with in this regard.

If we still have the flexibility to do so, which we intend to do with this matter and try to get the Senate to do what needs to be done in the national interest without regard to any impact on any supplier or contractor—I am reminded, we support CRAF, there is no question we support CRAF. It just has not worked.

I think one reason is that we cannot afford to fly around in modified airplanes that have a great deal more weight and pay the cost of fuel and operation of those modified airplanes unless we have some understanding as to what the Government is going to contribute to the maintenance of them.

We have a similar program on the sealift. We do have a Federal subsidy into construction, Federal subsidy in the operation and maintenance of sealift that is used in the private sector.

In terms of CRAF planes, there has not been an adequate recognition in the past of problems that CRAF operator, with regard to the cost of operation after modification. As a consequence, I understand only one has been modified for service in the type of airlift that we are talking about here today.

Ms. **Rasor**. I see the problems with the CRAF. I understand it. I think a good way to look at it is to look at the Air National Guard, the fact that since we do have pilots that are already trained.

Another possibility that I have been told is because the C-5 is a very expensive plane to maintain and take care of and it really economically doesn't make sense to use it for peacetime flying anywhere because it is a very expensive plane, but it would make a lot of sense to put the existing 77 C-5's in the Reserve, fly them only enough to keep them active and use them only for outsize equipment, emergency, because we did pay dearly for those planes and they do have that unique outsize capability.

One other point I would like to bring up is I do hope your committee and some other people look into the documents I am providing here, especially the computer printouts, because I have shown these computer printouts to some people who I think are rather hardened by the procurement process that goes on in the Senate, have been around for 20, 30 years and seen every trick in the book.

Even they were shocked and said this goes beyond any kind of reasonable—any kind of respsonibility the Air Force has for merely answering questions. You know Maj. Gen. Kelly Burke said this is democracy in action. It happens all of the time. He was quoted in the Washington Post. I think that is a serious, serious statement that should be looked into. Because if this is democracy in action, we will have a hard time defeating any Communist country in the world.

Senator **Stevens**. We have seen them. They were submitted to us, too. The problem really is that we seem to create this issue by the way we handled the C-17 last year and we should be taught a less, be a little more specific in our comments when it comes to something like the C-X.

But I do think there has been an excessive amount of lobbying this issue, there is no question about it.

Unfortunately, I have to go the floor. I appreciate your courtesy.

SUBMITTED QUESTIONS

Additial questions have been submitted to the Department from Senator Mattingly. They will be inserted in the record at this point.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS FOR THE BOEING COMPANY FROM SENATOR MATTINGLY

QUESTION:
We keep hearing about how well the 747 can perform in the military environment and that all these loaders and support equipment are out there for the Air Force to use. Last week, on June 19 to be specific, the Army chartered a 747 to fly a National Guard Unit from Puerto Rico direct to Fort Gordon in Georgia for a two week training exercise. However, they found that they cannot offload the troops at Fort Gordon due to a lack of ground support equipment. These are troops only, NO CARGO. The Army decided to fly the 747 into the Atlanta Airport, offload the troops, and then bus them to Ft. Gordon. The total flight time from Puerto Rico to Atlanta is about three hours and the bus ride to Ft. Gordon about four hours. The only other option was to fly an offload ladder and a fire truck large enough to handle a 747 into Ft. Gordon. THIS REQUIRED A C-5! Isn't this precisely the type of difficulties that the DoD and military witnesses have described?

ANSWER: The incident referred to is a situation that could occur for any type of airplane when planning is inadequate. The Boeing 747 proposal is offered as a solution to a Defense Department defined strategic airlift mission. The Defense planners include as a substantial portion (40-50%) of their existing airlift force 747Fs, 747 passenger airplanes, DC-10s, 707s and DC-8s from the Civil Reserve Air Fleet (CRAF) and KC-10s from SAC. These aircraft will supplement the Air Force C-141 and C-5A fleet. The strategic airlift mission destination will be (according to the DoD plan) major, large destination airfields which are secure from enemy attack and which will be equipped with support equipment necessary for an operation of this scope. (A list of support equipment required is attached. Note that the C-141 and C-5A require special ground support equipment also). We believe that a strategic airlift operation moving the RDF to southwest Asia would be well planned so as to eliminate these types of problems.

Additionally, if the Army had selected the C-5 to move this National Guard Unit it would require at least 5 C-5As to provide the seating capacity of one 747 passenger aircraft unless a special palletized seating configuration for the C-5 was utilized. To configure a C-5 with these seats requires the use of an elevator type K-loader and the C-5 would also require the large fire truck at Ft. Gordon.

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TYPICAL GROUND SUPPORT EQUIPMENT OF THE MILITARY AIRLIFT COMMAND

MAINTENANCE AND SERVICING	AERIAL PORT OPERATIONS	AIRPORT CONTROL AND SAFETY	OTHER
FUEL TRUCKS A/S 32R-9	CARGO LOADERS: A/S 32H-5 (25-K) A/S 32H-6 (40-K) A/S 32H-19 (TACTICAL)	FIRE TRUCK/ CRASH RESCUE	AIRCRAFT JACKS AND TOW-BARS
TOW TRACTORS MB-2 AND A/S 32U-30	FORK-LIFTS A/S 32H-13 (6K LB) A/S 32H-15 (10K LB)	"FOLLOW-ME" VEHICLES	LIGHT CARTS
ENGINE TRAILER ETU-9 AND -91	FORK-LIFT, ROUGH TERRAIN, 463L A/S 32H-13 A/S 32H-15	AMBULANCES	HEATERS
MAINTENANCE PLATFORMS; B-1/B-5A	CARGO TRAILERS A/M 32N-6	CREW TRANSPORTATION AND FLIGHT LINE CONTROL	PORTABLE FIRE EXTINGUISHERS
GENERATOR SET MD-3A, A/M32A-60A	*WIDE-BODY, MAIN DECK LOADERS 316 A/E		COMPOSITE TOOL KITS
HEATER; H-1, HDV-13/M	**PASSENGER BOARDING STAIRS		AIRFIELD LIGHTING SETS
COMPRESSED GAS SERVICE TRAILER (NITROGEN)	POTABLE WATER VEHICLE		
LOW TEMP LIQUID SERVICE TRAILER (OXYGEN)	LATRINE SERVICING VEHICLE		
HYDRAULIC SYSTEM SERVICING TEST STAND: MJ 1, MJ-2A			

* FOR CRAF CARGO AIRCRAFT

** FOR C[illegible]SENGER AIRCRAFT

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QUESTION:
General Allen, Commander in Chief, Military Airlift Command, has testified before Congress that the Air Force needs an aircraft that can carry outsized combat equipment; and particularly the firepower producing equipment. He says that only the C-5 can carry that large equipment -- the 747 cannot.

General Allen had more to say. I quote him:

> "We need an airlift aircraft that is optimized to load and unload equipment in austere environments."
>
> "The C-5 meets the requirement -- the 747 does not." -- Is that true?
>
> "We need an aircraft that permits a drive-on/drive-off capability for vehicular cargo."
>
> "The C-5 meets that requirement -- the 747 does not?" Is that true?
>
> "We need an aircraft that can load and unload without specialized loaders."
>
> "The C-5 meets that requirement -- the 747, with its cargo floor height of 16 feet, requires special elevator loaders which may or may not be available at the destination airfield." Can you comment on that?

ANSWER - Statements regarding 747F capabilities are all true. However, the statement of "need" as reflected in the CMMS and as used to justify the C-17 and C-5B programs, does not support the contention that additional airlift procured, in the quantities proposed by DOD, must have the capabilities referred to. This is clearly the case. The DOD also proposes to procure additional KC-10s and more CRAF capability, neither of which have the capabilities referred to in the above quotation. Boeing is not suggesting that the military has no need for unique military airlifter capabilities. Our analysis of the DOD requirements, as stated in CMMS, clearly shows that the Air Force owns enough C-5 aircraft to meet those specialized needs.

QUESTION:
We keep seeing pictures of 747 freighters with nose loading doors but I'm told that many of the used 747s are not freighters and therefore do not have this door. Does the Boeing fixed price of $12M for modification of these aircraft include installation of the nose door? If not, what would this cost.

ANSWER - The fixed price proposal for modification of surplus passenger 747 aircraft into a freighter configuration does not include the addition of a visor nose door to those aircraft. It does include the addition of a side-cargo door which is larger in dimension than the nose door and is adequate for loading oversize and bulk cargo. The cost of adding a nose door is not warranted considering the additional capabilities it provides and other procurement options open to the government.

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QUESTION:
When I take a step back and look at the arguments that have raged on this C-5B-vs-747 issue, it seems to me that it's basically an argument between the Boeing analysts and the analysts of the Air Force and OSD. Do you feel that your analysts have better information than the experts at the Pentagon? Is there any reason why we should believe your analysis over that of the DOD?

ANSWER - Boeing analysts have the same information regarding the airlift requirement and the same capability to analyse potential procurement options to meet the airlift requirements. The Boeing analysis has been reviewed with Air Force Aeronautical Systems Division, Military Airlift Command, Air Force Systems Analysis, Air Force Research and Development, OSD, and CBO analysts. In those reviews, conducted after announcement of the C-5B decision we found that no one other than Boeing had made an analytical assessment of the impact of the C-5B decision relative to the criteria of reducing RDF closure times to southwest Asia. Closure time reduction has been accepted by DOD and Industry as the primary criteria, along with cost, against which the airlift decision would be made. We also found in those reviews no disagreement which would change the fundamental results of the Boeing analysis. Additionally, it is apparent to us that 747F cost and capability information held in the Pentagon is incomplete and incorrect despite our attempt to clear the record regarding that information.

QUESTION:
In comparing the military utility of the 747 and the C-5, you advocates of the 747 like to speak of the C-5 as only an outsize carrier. As I see it, there are many other significant C-5 capabilities that are absent in the 747s. I'd like to ask you about the capabilities of the 747.

1. --Does it have integral, self-deploying loading ramps at both ends of the aircraft?

   Answer - No

2. --Does it have doors fore and aft that open up as large as the interior of the aircraft?

   Answer - No

3. --Does it have a strong cargo floor capable of loading the large military combat equipment?

   Answer - The cargo floor strength will support the oversize and bulk cargo loads required per the CMMS.

4. --Does it provide truck-bed height loading at both ends of the aircraft?

   Answer - No

5. --Does it have drive on/drive off vehicular loading?

   Answer - No

6. --Can it land on unpaved surface?

   Answer - No

7. --Can it land on short runways?

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Answer - 747F landing performance using normal military rules is comparable to the C-5. Assuming consistent performance rules, the 747 landing distance is 800 ft. longer than the C-5.

8. --Can it be serviced without special support equipment?

Answer - It can be serviced by the same equipment used to service existing CRAF airplanes and the KC-10.

GENERAL - The C-5A has unique capabilities such as those alluded to in these questions. Boeing does not deny this. Our assessment of the requirements developed by DoD in the CMMS is that the Air Force has enough C-5As (77) to accomplish the outsize movement required in the CMMS, considering the DoD proposed program. Our analysis shows that adding either 50 C-5Bs or 48 747F aircraft to existing airlift resources has an identical operational result.

1) As a Senator, Mr. Mattingly, you must know that one person does not write a bill. Senators and Congressmen do not have the expertise in the many areas that bills they present cover. In order to handle such large ranging subjects, each office has staff members with the expertise needed for their committee positions.

In the same way, the Project on Military Procurement relies on people with military weapon and procurement expertise to evaluate DoD practices. These men and women have worked their whole professional lives either in the DoD or under contracts with the DoD. Combined, their time in service to this country is well over 100 years. These are the people I work with and who provide the data the Project bases its testimony and reports upon.

I would be the first person to agree that I do not have a strong background in strategic mobility planning. But then I have never portrayed myself as having such. Instead the Project speaks for those who who cannot speak for fear of reprisal. With the data provided by these closet patriots, which is extracted from the DoD's own internal documents, the Project presents an alternative view of defense spending which the Congress needs to hear. Since other Congressmen and their staff have also questioned the CMMS results, I think you will see that everything the DoD states should not be taken blindly by the American public and the Congress.

2) Since your question is not specific about the data you and Mr. Mosemann feel are misleading and incorrect, I may not be able to answer as you wish.

Instead, I will say that all of the Project's statements and reports have been based upon official Air Force, Military Airlift Command, Lockheed, MacDonnel-Douglas, and Boeing data.

The Project has documents that show the decision to buy more C-5's was highly political. On January 8, 1982, Mr. Orr briefed Mr. Carlucci on all the reasons not to buy the C-5. Some of the reasons were Lockheed's limited cost and schedule visibility, tentative aircraft performance specifications, no enforceable reliability or maintainability, the C-5's low mission capable rating, and its high maintenance manhours required per flying hour. Is Mr. Mosemann saying that this report which was prepared by the U.S. Air Force for Mr. Orr contains "misleading assumptions, and incorrect statements and comparison?" Mr. Orr's recommendation in this briefing was to use CRAF, KC-10's and B-747's in the short term, and the C-17 in the long term. He did not recommend the C-5 at all. (I will be happy to supply a copy of this briefing for your inspection.)

On April 1, 1982, Major General Robert Rosenberg, USAF Assistant Chief of Staff, Studies and Analysis, sent an analysis of the 747 proposal to AF/RD and said, "SA analysis does not dispute the Boeing claim of equality between the DoD program and their alternatives." Does Mr. Mosemann think the AF/SA is misleading the Air Force with such a statement.

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In April, 1982 the Military Airlift Command sent a cable to the Pentagon saying the C-5 option is preferable from the standpoint of "pure military utility," but that either the 747 or the C-5 could effectively reduce the airlift shortfall. Is MAC incorrect in its comments to the Pentagon?

These documents, plus others I have, show that it was not a unified decision to go with the C-5. Again, if you will provide specific examples of where you and Mr. Mosemann feel the Project's data has been incorrect, I will be happy to look at them.

SUBCOMMITTEE RECESS

Senator STEVENS. The subcommittee stands in recess this issue, subject to the call of the Chair.

[Whereupon, at 2:10 p.m., Thursday, June 24, the subcommittee was recessed to reconvene at the call of the Chair.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1983

WEDNESDAY, MAY 12, 1982

U.S. Senate,
Subcommittee of the Committee on Appropriations,
Washington, D.C.

The subcommittee met at 10 a.m., in room 1114, Everett McKinley Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Schmitt, and Andrews.

DEPARTMENT OF DEFENSE

STATEMENT OF LT. GEN. ROBERT C. KINGSTON, USA, COMMANDER, RAPID DEPLOYMENT JOINT TASK FORCE

ACCOMPANIED BY:

- CHARLES W. GROOVER, DEPUTY ASSISTANT SECRETARY OF DEFENSE FOR PROGRAM INTEGRATION, OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE (MANPOWER, RESERVE AFFAIRS AND LOGISTICS)
- LT. GEN. JAMES R. BRICKEL, USAF, DEPUTY COMMANDER IN CHIEF, U.S. READINESS COMMAND
- COL. JOSEPH V. RAFFERTY, USAF, HEAD OF FORCE PLANNING AND PROGRAMING DIVISION, PLANS AND POLICY DIRECTORATE, J-5, ORGANIZATION OF THE JOINT CHIEFS OF STAFF

RAPID DEPLOYMENT JOINT TASK FORCE READINESS

ARMED FORCES READINESS

Senator Stevens. Gentlemen, we apologize for the problem regarding the hearing this morning. We had originally set it for 9 a.m. and changed it to 10 a.m. It is apparent that I am involved in convening the Senate more days than not now. I regret the inconvenience. We will try to see that it doesn't happen again.

I extend my apologies to Senator Stennis, also.

The principal subject of our inquiry today is the Rapid Deployment Force. I have also requested that the Department witnesses be prepared to discuss the general readiness of our Armed Forces.

Our current military force levels stand at over 2 million personnel, most of which would be dedicated to an overseas location in the event of conflict.

RDF—QUICK RESPONSE UNIT

One of the keys to our global military contingency planning is the quick response unit—the Rapid Deployment Force. The Secretary of Defense and the Joint Chiefs of Staff have determined that the RDF will be a joint service unit, thereby rejecting the notion of singular responsibility in the hands of the Marine Corps. Further, the RDF has been removed from the operational control of the U.S. Readiness Command and, by next January, will be a separate JCS unified command, specifically dedicated to Southwest Asia—the Persian Gulf region.

Although the organization and regional assignments have been swiftly implemented, the mission scenarios and, most important to this committee, the funding requirements, remain uncertain.

Despite all the public attention to rapid deployment, it remains virtually impossible for this committee to determine just how much of the fiscal year 1983 budget request is for the RDF. Even the RDF Commander's prepared statement today passes over the appropriations for the RDF. It is difficult for us to secure support for the RDF as a separate entity, particularly with the U.S. Readiness Command still in place, without adequate budget justification and program definition.

The examination of funding requirements, assets, and mission scenarios to the RDF is the direction of this hearing today.

With my apologies and, on the record, everyone knows my great love for the District of Columbia, so if you would like to join me in enjoying the swamp of the place and take off your jackets, I will be happy to have you do so.

INTRODUCTION OF WITNESSES

I am pleased to have General Kingston, Commander of the Rapid Deployment Joint Task Force; General Brickel, Deputy Commander in Chief of the U.S. Readiness Command; and Mr. Groover, Deputy Assistant Secretary of Defense for Program Integration.

Gentlemen, your statements will be printed in the record in full.

General Kingston, there are others who will assist you today. I hope you will help us by identifying them as they participate, for the record. Thank you.

I might say that we started at 8:45 this morning in the Senate. Under our rules we will not be able to sit beyond 10:45.

DEPARTMENT OF THE ARMY

STATEMENT OF LT. GEN. ROBERT C. KINGSTON

General KINGSTON. Senator Stevens, I appreciate the opportunity to appear before this committee. My purpose today is to acquaint you and the other members of the committee with essential Rapid Deployment Joint Task Force programs and how they will be affected by the fiscal year 1983 defense budget.

In March of 1980 the Rapid Deployment Joint Task Force was established as a subordinate command of the U.S. Readiness Command with a mission to deploy joint forces worldwide. Today the RDJTF is a separate joint task force, reporting directly to the National Command Authorities through the Joint Chiefs of Staff. The Secretary of Defense has directed that the RDJTF transition to unified command status by January 1, 1983.

My current mission is to conduct planning for possible Southwest Asia contingencies that would affect the vital interests of the United States, to conduct the training that is required to assure the operational readiness to respond to those plans and to be prepared to deploy my forces, no notice, to the Southwest Asia region on order.

ACTIVITIES OF RDJTF

The RDJTF is basically a deterrent force. If deterrence fails and it becomes necessary to come to the aid of our friends, we must be prepared to deploy forces to the region quickly when directed by the National Command Authorities and, if required, commit them to combat in defense of our vital national interests.

FORCE STRUCTURE AND MISSION OF RDJTF

The force structure and mission of the RDJTF was evolving during the first year and one-half of its existence. Therefore, service programing of funds for RDJTF-related activities was like shooting at a moving target. Now, as a separate joint task force with forces designated and assigned, we can begin to more clearly assess our own needs and the contribution of service budgets toward meeting my mission essential requirements. The fiscal years 1984–88 service program objective memoranda are the first formal opportunity my staff has had to work with the service staffs to identify RDJTF needs.

COSTS OF SOUTHWEST ASIA-RELATED PROGRAMS

In order to address the costs of Southwest Asia-related programs, certain considerations are in order. The costs of forces allocated to the Southwest Asia mission would not necessarily be reduced by eliminating the mission, since these forces also have roles in other theaters. In addition, mobility program costs should not be directly apportioned to Southwest Asia, as these programs—specifically strategic and tactical airlift, strategic sealift, and amphibious shipping—are badly needed to support any significant contingency.

I believe that certain specific Southwest Asia-related programs are essential. One of the best examples is our exercise and environmental training program. Some of you may be aware of Exercise Bright Star 1982, conducted in Egypt, Somalia, Sudan, and Oman during November and December of last year. It involved deploying over 6,500 American personnel into the region.

While exercises such as this are expensive, they are a visible demonstration of U.S. capability and resolve to our friends and send the right kind of signal to our adversaries as well. In the end, being unprepared would be far more costly.

On the other hand, there are programs such as hospital support and communications enhancements designed to correct existing shortfalls and to support the Southwest Asia strategy but which could support missions in other theaters of operation.

As a result of current programs, the RDJTF now has a credible force projection and combat capability but it is still not enough. We need more airlift and sealift to improve our capability to project combat power in greater quantities and more rapidly in support of U.S. interests.

COMMAND AND CONTROL COMMUNICATIONS

We also need better command and control communications. We must improve our capability to sustain and resupply our forces once they are committed.

The services are working diligently to solve these problems and I am confident that our capabilities will improve with time. The fiscal year 1983 defense budget and the fiscal years 1984-88 service program objective memoranda are steps in the right direction.

We are in the process of transitioning from joint task force status to that of a unified command. As we continue the transition, the Rapid Deployment Joint Task Force will take on added responsibilities and my staff will continue to increase accordingly.

FACILITIES AT MACDILL AIR FORCE BASE

Facilities are currently under construction at MacDill Air Force Base but are not sufficient to house more than one-half of my headquarters. Funds to complete this construction are contained in the fiscal year 1982 supplemental budget request. Early appropriation of these funds would save contractor demobilization and subsequent remobilization costs; it would also avoid the great disadvantage of having my headquarters split and separated by 5 miles for up to 1½ years.

OVERALL ADEQUACY OF FISCAL YEAR 1983 BUDGET

Addressing the overall adequacy of the fiscal year 1983 defense budget, I believe it provides a strong signal to our adversaries of the commitment to enhance our national security and demonstrates our resolve to our friends as well. This, in itself, is an important contribution to deterrence.

The budget also represents a cooperative effort among the services to assure a balanced force posture so as to be better prepared to cope with a wide range of contingency missions.

RDF READINESS ENHANCEMENTS

Finally, relative to RDJTF programs, the services have been very forthcoming in funding RDF readiness enhancements, in some cases even at the expense of their own programs.

My task now is to take what you approve and develop the best combat capability possible. This notwithstanding, I want to emphasize the importance of strategic mobility, communications, and sustainment programs, specifically airlift, sealift, prepositioning of equipment, military construction programs for Southwest Asia and en route basing, and command, control, and communications. These are the lifeblood of successful operations in Southwest Asia; therefore, the programs outlined in the fiscal year 1983 defense budget are necessary to enhance the capability for protecting vital U.S. interests in that region.

Mr. Chairman and members of this committee, I solicit your continued support.

Thank you. Mr. Chairman, we have already identified General Brickel and Mr. Groover.

Senator STEVENS. Mr. Groover, do you have a statement?

ASSISTANT SECRETARY OF DEFENSE

(MANPOWER, RESERVE AFFAIRS AND LOGISTICS)

STATEMENT OF CHARLES W. GROOVER, DEPUTY ASSISTANT SECRETARY OF DEFENSE FOR PROGRAM INTEGRATION, OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE (MANPOWER, RESERVE AFFAIRS AND LOGISTICS)

DEFENSE READINESS OVERVIEW

Mr. GROOVER. Yes, Mr. Chairman, I have provided a formal statement for insertion in the record. With your permission though, I will summarize it briefly now.

I appreciate this opportunity to appear before your committee to give you an overview of defense readiness, with emphasis on materiel and readiness.

Beginning immediately upon taking office and continuing today, the Reagan administration has accorded a top priority toward enhancing the readiness of existing forces.

The major resource categories that drive the materiel readiness of our weapon systems are maintenance funding, both in our central depots and for the units in the field, and spares procurement.

The length of the strategic warning that we can safely anticipate is much shorter than the time required to buy more spare parts, to repair or overhaul systems or components in our depots or to acquire additional maintenance capacity in the field. Therefore, it is clearly not only smart management to buy the spare parts and fund the necessary maintenance in peacetime to keep our weapon systems that we have already bought in commission, but it is also imperative if we are to keep our forces in a posture that allows them to respond to future crises within the warning time they are likely to get.

Thus, our fiscal year 1983 budget request includes substantial increases in spare parts procurement and depot maintenance, including ship overhauls. The increase is about 11 percent higher in real terms than those budget items in fiscal year 1983 and about 23 percent higher than those same categories in fiscal 1981.

We are also taking specific action to reduce maintenance downtime on our weapon systems that are already in the field, and we have several initiatives underway as part of Deputy Secretary Carlucci's acquisition improvement program that are designed to improve the readiness and operational support capability of new weapon systems that are now in development.

Let me wrap this up by saying that in general all categories of our weapon systems are projected to increase their materiel readiness over the next several years. The summary statistics are provided in the statement that I have provided for the record.

The detailed data on existing readiness figures and a projected readiness are provided in classified form in our force readiness report that was forwarded formally to you a couple of months ago.

Senator STEVENS. Thank you very much.

[The prepared statement of Mr. Groover follows:]

PREPARED STATEMENT OF CHARLES W. GROOVER

DEPUTY ASSISTANT SECRETARY OF DEFENSE (MRA&L) FOR PROGRAM INTEGRATION

(U) Mr. Chairman, members of the committee, I welcome this opportunity to discuss with you the vitally important subject of military readiness. I would like to address the materiel condition of our major weapon systems to include: (1) what we are doing to minimize the downtime of these systems, and (2) the operational support implications of our new weapon systems. I will then follow-up with a brief quantitative summary of the projected materiel readiness we could expect from the funding requested by our FY 83 and prior budget requests. These projections will focus on the Mission Capable (MC) rates of our major systems.

(U) In recent years, the DoD has made an increasing effort to insure that our very expensive weapons systems are maintained operational and available (i.e., "ready") a larger fraction of the total time. The Reagan administration is fully committed to the philosophy that we must adequately maintain our current weapons and equipment as we also expand new procurement. Since the cost to repair or overhaul a weapon or component is typically 1/4 to 1/10 the cost of new procurement, full funding of the maintenance, repair and spares procurement requirements gives the maximum number of combat ready weapon systems per total Defense dollar spent and thereby maximizes the deterrent effect of our expensive general purpose forces. Thus, you will find that the DoD FY 83 funding request for spare parts procurement, depot maintenance, and ship overhauls has increased, in real terms, by about 11% over FY 82 and 23% over FY 81. DoD is beginning to get even more leverage out of these funding increases through improved management and efficiency. For example, DoD is moving toward more management by weapon system so that we have more visibility on the resource needs and performance of individual systems. This should enable us to focus more on the availability of weapon systems rather than on such intermediate outputs as the performance of the supply system. Additionally, DoD has taken the following specific actions to reduce the downtime of our major weapons systems:

- In all Services we have implemented, in varying degrees, the concepts of reliability-centered maintenance (RCM) to eliminate or reduce the frequency of organizational tasks that can produce unnecessary maintenance downtime;

- In the Army, we have instituted the use of a world-wide hotline to trouble-shoot and guide the repair of engines and airframes, and have developed the Army Oil Analysis Program (AOAP) to provide early analysis of unusual conditions to permit repair before failure;

- In the Air Force, we are improving the training and resulting proficiency of our maintenance personnel by lengthening basic Air Training Command (ATC) skill courses; we are also providing additional progression training.

- In the Navy, we have expanded the Commercial Industrial Services (CIS) Program to handle intermediate and selected organizational work through contractor services when Navy Intermediate Maintenance Activity (IMA) facilities are overloaded.

(U) In addition to these actions to reduce downtime of systems already in the field, DoD has taken a number of steps to enhance the support and resulting readiness of new systems in development. Deputy Secretary Carlucci's Acquisition Improvement Program, started a year ago, identified 31 initiatives to improve the overall acquisition process; several of those initiatives were designed to improve readiness and operational support and to give readiness comparable importance to system capability and reduced acquisition time.

- Two of these initiatives (#'s 9 and 31) make readiness an integral part of the weapon system management process by requiring explicit weapon system readiness objectives early in the development process and ensuring that the reliability and maintainability requirements and necessary resources support these objectives.

- Initiative 12, "Provide Adequate Front-end Funding for Test Hardware," requires USDRE to ensure that the acquisition strategy identifies plans for and funding required to acquire adequate subsystem and system test hardware.

- Initiative 16, "Contractor Incentives to Improve Reliability and Support," is to develop guidelines on approaches to incentivize contractors to improve support.

- Initiative 30, "Program Manager Control Over Logistics and Support Resources," requires an experiment under which the Services identify support resource requirements and readiness objectives by weapon system, for systems entering or in early production; they are also to develop procedures for increased Program Manager resource visibility and control so that he can have a voice in the support resource allocation and budget execution process, and be better able to influence changes to his plan.

(U) Against this backdrop of our ongoing efforts to improve readiness and operational support of current and future systems, I will now present a brief summary of the materiel condition of our major weapon systems. We normally employ Mission Capable (MC) rates to assess the materiel readiness of our weapons and equipment. Basically, a weapon system MC rate is the ratio of weapon system "up" time to "total possessed" time (i.e., "up" plus "down" time). A weapon system is "up" if it is ready--immediately--to perform at least one of its assigned missions. If a weapon system is ready to perform all of its assigned missions, then it is fully mission capable (FMC).

(U) Before I present specific MC rates for specific weapon systems, I believe a few words about how to interpret MC rates would be in order. Mission capable rates are useful indices of the peacetime health of the logistics and support systems. Even more important than the absolute numbers during any one time period, historical and projected trends in these rates warn us of problems or satisfy us that the support systems are working as they should.

(U) Since we express MC rates as percentages, we instinctively compare the rates quoted against a "standard" of 100%. Such a comparison, however, is misleading. In the real world, even under the best of conditions, a weapon system must undergo periodic inspections and preventive maintenance. Thus, even if a weapon system never "breaks" in service, significant maintenance downtime is an unavoidable cost of doing business. In addition, we cannot predict with certainty which system components will fail when and how often. We could not afford, nor would we want, to buy enough spare components to protect completely against the uncertainty involved. The point is: A realistic MC standard will always be well below 100%.

(U) While our MC standard is normally well below 100%, we should remember that these MC rates are measured under peacetime conditions. In an actual emergency, there would usually be some (probably at least several hours) tactical warning time, so that an aircraft would not, in general, be called upon to respond without notice at any time of the day or night. In such an emergency, there would be unrestricted use of war reserve spares in addition to peacetime operating stocks, and unrestricted cannibalization of components from non-mission capable aircraft. Also, maintenance shifts could be extended, essential personnel could be recalled from leave, training, or temporary duty; and scheduled maintenance and inspections could be reduced, deferred, or discontinued. For all these reasons, mission capable rates for most aircraft types and missions, will generally under-estimate our ability to fly sorties in the early stages of a conflict or other emergency.

(U) Finally, we should recognize that shortages of skilled technicians have affected mission-capable rates. Recent successes in recruiting and retention, in terms of both quantity and quality, are starting to pay off. In all of the Services the enlisted careerist population has been increasing, alleviating our technician shortfalls in the middle grades. Fewer units today report readiness problems as a result of personnel shortages than at the beginning of the fiscal year. However, as new weapons systems enter the inventory our requirements for skilled technicians will increase, and we cannot afford to be complacent about our recent personnel successes. While current manpower trends are favorable, we must maintain the momentum. Maintaining pay comparability is an essential ingredient to this overall effort.

(U) With these preliminary remarks, let me now proceed with an overview of the materiel condition of the principal weapon systems of each Service.

ARMY

(U) The materiel condition of most major Army systems remains satisfactory, although it is difficult to maintain this status for aging equipment (e.g., materiel-handling equipment, tactical vehicles, engineering equipment). On-going modernization is expected to ameliorate many equipment aging problems.

(U) Army aviation achieved an average mission capable (MC) rate of 74% for FY 1980-81, almost reaching its goal of 75%. Funds added in the FY 1982 budget should allow Army aviation to achieve its average MC rate goal in FY 1982. Further increases in the FY 1983 budget request, and beyond, should allow the Army to maintain this level through FY 1985. Almost all Army aircraft types are projected to improve their MC rates between FY 1981 and FY 1983 and attain their individual MC rate goals by FY 1985.

(U) The MC rates for all Army guided missile systems, except for the HAWK, are currently at or above their goals. The Hawk's MC rates are expected to improve from FY 1982-85.

(U) Improvement is expected in artillery MC rates as a result of the deployment of the new 155mm towed howitzer, product improvement of the self-propelled 155mm and 8" howitzers, and the overhaul of the Vulcan fleet.

NAVY

(U) Ships:

(U) The surface ship materiel condition is projected to improve during FY 1982-85, with improvements in all mission areas and all ship classes except for destroyers. The Navy's FY 1983 depot maintenance program is fully funded in that no ships will be backlogged for overhaul due to fiscal constraints. We expect the number of ships overdue for overhaul because of operational commitments to decline from 16 in FY 1982 to 11 in FY 1983. The increase in civilian personnel ceilings at Naval shipyards for FY 1982-83 will increase the total number of overhauls that can be accomplished.

(U) Aircraft:

(U) The Navy estimates that average Naval aircraft mission capable rates will improve steadily during FY 1982-85 as shown below:

Department of the Navy (DON) MC RATES (%)[a]

		Actual		Projected			
	Goal	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
Weighted Avg All DoN A/C							
MC	70	59	59	60	62	63	64
FMC[b]		37	37	37	39	40	40

[a] These MC rate projections are based on the aircraft support requirements submitted to OSD in October 1981 with the Navy's budget request and the funding included in the FY 1983 President's budget and outyear program. Recent fact-of-life changes have increased these support requirements; additional support funds (e.g., depot maintenance funding) will have to be provided in FY 1984 and beyond in order to make these MC projections a reality. The DoD is commited to making those adjustments in the next PPB cycle. To the extent that there are critical FY 1983 deficiencies, we would expect to resolve them through reprogramming.

[b] Full Mission Capable.

(U) Some aircraft types do not follow these average positive trends -- primarily aging aircraft, particularly those being phased out -- but 23 of 34 DON aircraft types, including all first-line tacair aircraft, are expected to increase their MC rates between FY 1981-85.

AIR FORCE

(U) The Air Force projects that its average aircraft mission capable rates will remain relatively constant through FY 1983, and then show some improvement in FY 1984-85 reflecting increased FY 1982-83 spares procurement funding. Some of the improvement is also due to old aircraft phasing out, and new, more reliable aircraft coming into the inventory. The FY 1983 Air Force budget fully funds the depot repair of aircraft components, engines, and airframes. Repair backlogs in these areas have held down aircraft mission capable rates in the past.

(U) The Air Force mission capable rate projections compared to the actual rates achieved in FY 1980-81 are as follows:

Air Force Aircraft Mission Capable Rates (%)

		Actual		Projected			
	Goal	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
Weighted Avg All A/C							
MC	75	66	65	65	65	68	69
FMCa/		56	56	55	55	58	59

a/ Full Mission Capable

(U) Of 26 aircraft types, 19, including all first-line tacair aircraft, are expected to increase their MC rates between FY 1981-85. Despite these positive trends, however, only three Air Force aircraft -- the C-9, E-4, and OV-10 --are expected to attain their MC rate goals by FY 1985.

MARINE CORPS

(U) Mission capable rates for the LVT7 landing vehicle family are expected to decrease slightly until the new LVT7A1s are fielded in FY 1985. The rebuild program for the LVT7 family has been terminated in anticipation of fielding the LVT7A1. The conversion from the M109A1 self-propelled 155mm Howitzer to the M109A3 (begun in FY 1981) is scheduled to continue through FY 1986, and improve the materiel condition for this equipment type. The Improved HAWK systems are on a five year rebuild cycle. The materiel condition of these systems should stabilize with the reduction in the number of fielded Army Improved HAWK units because of decreased competition for spares in the supply system.

SUMMARY

(U) The readiness-related funding increases in the President's original FY 83 budget submission demonstrate the resolve of this administration to improve the readiness of our forces. This budget would virtually eliminate the component repair depot maintenance backlogs in all Services, increase substantially our aircraft and weapons system spares inventories, and avoid any ship overhaul backlog due to financial constraints. These FY 83 initiatives will result in significant improvements in materiel readiness not only in FY 83 but also in FY 84-85 when the FY 83 funded spares are delivered to the field. It is essential that our ground combat equipment, strategic and tactical aircraft, and ships be maintained at a high state of readiness in peacetime so that they could transition to a fully combat ready status within the short period of warning we could reasonably expect to receive.

RECESS

Senator **Stevens**. Gentlemen, there is a vote on. We will stand in recess.

[Recess.]

Senator **Stevens**. I misspoke myself. We don't need permission to continue with our hearing, so we will continue.

General Brickel, do you have a statement at all to make?

DEPARTMENT OF THE AIR FORCE

STATEMENT OF LT. GEN. JAMES R. BRICKEL, USAF, DEPUTY COMMANDER IN CHIEF, U.S. READINESS COMMAND

MISSION STATEMENTS

General **Brickel**. No, sir. If I may, however, I would like to introduce for the record the mission statements for both the Readiness Command and the Joint Deployment Agency. I believe they would be of interest to the committee.

Senator **Stevens**. We will include those in the record.

General **Brickel**. I thank you, sir.

[The information follows:]

UNITED STATES READINESS COMMAND

MISSION STATEMENT

The missions of the United States Readiness Command are to provide contingency forces designated by the Joint Chiefs of Staff to other unified and specified commands, and Commander, RDJTF for conventional operations; to conduct planning for assigned or programmed forces to reinforce other unified or specified commands; to conduct joint training for assigned forces to supplement that conducted by other commands, and develop recommendations to the JCS regarding joint tactics, techniques, and procedures for the joint employment of these forces; to manage Tactical Air Control Systems/Air Defense Systems joint operational interface training for CONUS-based forces; and to provide joint planning for the defense of Alaska, other than Aerospace Defense. United States Commander in Chief Readiness Command is responsible for planning and for coordinating the execution of the land defense of Continental United States (CONUS) and military support of civil defense in CONUS; and, as directed by the JCS:

Provide a general reserve of combat-ready forces to reinforce other commands.

Provide forces and activate a separate Joint Task Force or Joint Unconventional Warfare Task Force to conduct contingency planning and operations, disaster relief, and noncombatant evacuation operations in unassigned areas.

Provide Joint Communications Support Element support.

Provide Joint Special Operations Support Element support as requested by other unified commands or Commander, RDJTF.

THE JOINT DEPLOYMENT AGENCY

TERMS OF REFERENCE

MISSION

The Joint Deployment Agency (JDA) supports the Joint Chiefs of Staff and supported commanders in planning for and executing deployments. As directed by the Joint Chiefs of Staff, the JDA is responsible for coordination of deployment planning and execution in accordance with these guidelines and will act as the focal point for deployment associated decisionmaking information. Deployment planning and execution entail use of authorized systems and measures for planning, coordinating, and monitoring deployments/redeployments and movements of mobilized forces and materiel necessary to meet military objectives.

a. During peacetime deliberate planning, the JDA will interact with the Joint Deployment Community (JDC) and coordinate deployment activities relating to the development, refinement, and maintenance of operation plans, deployment exercises, and establishment of necessary interfaces and procedures for wartime. JDA will assist the Joint Chiefs of Staff in developing deployment-related information requirements for use in wartime decisionmaking and formulation of alternatives. The coordinating function of JDA further extends to reviewing supporting transportation plans involving common-user lift for the deployment of forces and movement of materiel as required by the supported commander.

b. During time-sensitive execution planning, the JDA will interact with the Joint Chiefs of Staff, supported and supporting commanders, transportation operating agencies (TOAs), and the Services and provide a single point of contact for other supporting agencies. The JDA will coordinate deployment-associated data in execution planning in no-plan, multi-plan, or revised-plan situations in accordance with JCS guidance. Additionally, and in coordination with the TOAs and supporting commanders, the JDA will provide closure estimates and other data as required to the supported commander(s) for developing alternative courses of action and optimal flow of forces into theater, and will provide data for use by the Joint Chiefs of Staff in evaluating alternative courses of action for National Command Authorities (NCA) decision and in formulating lift and other allocation decisions.

c. During deployment execution and sustainment of forces, JDA will act as the agent of the Joint Chiefs of Staff and supported commanders and within their guidance will adjust movement plans, schedules, and modes of transport and will direct implementation of deployment decisions. The JDA will continue to interact with the Joint Chiefs of Staff, the supported and supporting commanders, the TOAs, and the Services and will continue to provide a single point of contact for other supporting agencies. Additionally, the JDA will monitor the deployment and provide movement status for the Joint Chiefs of Staff and other members of the JDC, and will provide necessary deployment-associated data to the Joint Chiefs of Staff for formulating recommendations to the NCA, for revising lift allocations, and for adjudicating conflicting requirements. JDA also will monitor those intratheater movements associated with intertheater deployments, as directed by the Joint Chiefs of Staff.

STATUS OF RDF

Senator STEVENS. I think there were several people who told me on the floor they would like to be over here, but the defense authorization bill is on the floor and it makes it a little difficult to be involved in both this hearing and action on the floor.

General Kingston, as I stated at the beginning of this hearing, it is difficult for us to interpret what is going on. Do you think we really have an RDF now?

General KINGSTON. Yes, sir, I do.

Senator STEVENS. It is in place?

General KINGSTON. Part of it is in place and part of it is forces under my planning responsibility.

Senator STEVENS. Is it ready to deploy now?

General KINGSTON. Yes, sir.

Senator STEVENS. Why is it keyed solely to Southwest Asia?

General KINGSTON. In the concept of the original Rapid Deployment Joint Task Force it was worldwide, other than Korea and NATO, South Korea, where we have permanently stationed U.S. forces. That was a concept. The Rapid Deployment Joint Task Force did not come into being until March 1980, after the fall of the Shah of Iran and after the Soviet invasion of Afghanistan. It became apparent to my superiors that the United States had vital interests in the Persian Gulf region that were not adequately protected or could not be adequately protected by existing arrangements.

A headquarters was formed on March 1, 1980, and later given the specific mission of concentrating on Southwest Asia. When we become a unified command next January, that will be the assigned area.

Senator STEVENS. Are you concentrating on Southwest Asia to the point that you would not be able to use the RDF to the Arctic, for instance?

General KINGSTON. Sir, I have that capability, because I have now in existence a four-service headquarters—Army, Navy, Air Force, and Marines, with Army and Air Force components assigned. The Marines and the Navy operate in support when we go into the existing unified command's area.

The capability to deploy my four-service headquarters and employ my components in the Navy and Marine forces is there. For planning purposes, my headquarters is concentrating on the Southwest Asia region.

Senator STEVENS. Will the RDF be capable of handling problems such as developed in the Falklands for the British?

General KINGSTON. I don't understand "handling the problem," sir. I don't believe the U.S. Rapid Deployment Joint Task Force would have 2 weeks' notice during which strategic negotiations would be going on. We would get 30 days strategic warning for the worst-case contingency, I believe, once opposing forces had begun to mobilize.

RESPONSE TIMEFRAME

Senator STEVENS. What is the timeframe for your response?

General KINGSTON. I can respond with forces in being, naval forces that are now on station in the Indian Ocean with naval air. From Okinawa I can respond with Air Force air, land-based air, within hours. I can project a brigade from the 82d Airborne from the east coast of the United States to the Southwest Asia area within 48 to 72 hours. I can project the lead elements, the combat elements, of one of my light divisions from the east coast of the United States to the Persian Gulf area within about 10 days.

Senator STEVENS. In your opening statement you mentioned that the internal programing of funds for the RDF is like shooting at a moving target. What do you mean by that?

General KINGSTON. Because up until this year, sir, my staff has been working with the service people who prepare the service budget, telling them my requirements; and the services provide me most of the things with which I perform my mission—the people and resources. The funding for my headquarters is the responsibility of the U.S. Air Force. This year is the first time we have gone to the services and formally presented my requirements, what I wanted the Army to do for the Rapid Deployment Joint Task Force, for example, and what I need from the other services. What they have put in their POM's we don't know at this time. That information, I understand, is being released this afternoon.

Senator STEVENS. To whom is it being released? The committee has not received it yet.

General KINGSTON. It is coming out of the JCS today. When I say "released," I mean released to the services and the Joint Chiefs.

Senator STEVENS. We have been having a considerable amount of difficulty this year identifying the amount of the military budget that is dedicated to certain objectives. For instance, we still do not have a firm figure on what it costs to meet our NATO commitment. Now, I gather from whay you say it is not going to be possible for us to find out what is committed to RDF funding; is that right?

General KINGSTON. I cannot give you that information. I do not have it.

Senator STEVENS. But it is committed to one area of the world, Southwest Asia?

General KINGSTON. The Rapid Deployment Joint Task Force and the components are committed there; however, as to the enhancement program by all of the services, some funds are directly related to the Rapid Deployment Joint Task Force. That would be the exercise programs that we conduct in the area. The airlift, the strategic sealift, the amphibious lift, some of the communications enhancements, can be used by any service or other services and in any worldwide commitment.

So, even if there were not a Rapid Deployment Joint Task Force, I believe those strategic lift requirements would be necessary if we are going to project sufficient force or reinforce our existing overseas commanders rapidly.

Senator STEVENS. Can you give us a detailed summary of the indirect and direct funding that is available in the current year and 1983 for RDF, if possible?

General KINGSTON. Sir, I would like to defer on that one, if I may, to Col. Joseph Rafferty, who is from the JCS J-5.

JOINT CHIEFS OF STAFF

STATEMENT OF COL. JOSEPH V. RAFFERTY, USAF, HEAD OF FORCE PLANNING AND PROGRAMING DIVISION, PLANS AND POLICY DIRECTORATE, J-5, ORGANIZATION OF THE JOINT CHIEFS OF STAFF

Colonel RAFFERTY. Sir, we can provide that information to you. Identifying precisely which ones are unique to Southwest Asia, as opposed to which ones are related to Southwest Asia, is being studied by the OSD staff and has been for several months now.

We have been trying to come up with precise, definitive identification of which ones are and which ones are not. We can provide to you the information to the best of our ability and to the extent that that study is underway to this point.

Senator STEVENS. Give it to us for the record, if you will.

General KINGSTON. Excuse me, Mr. Chairman. I believe that is classified.

Colonel RAFFERTY. It is. It will be classified. The 1983 information is unclassified. 1982 and 1983 are unclassified. Projecting further will be classified.

[The information follows:]

RDJTF

QUESTION: For the hearing record, please submit a detailed summary of all direct and indirect RDF funding in the current year and in the 1983 budget. Give it to us by appropriation and activity, and include a brief justification narrative.

ANSWER: The information follows:

SOUTHWEST ASIA COST

The following data identifies programs and costs directly attributed to Southwest Asia (SWA) and those programs which are indirectly related. The second grouping may have been initiated as a result of the SWA crisis but have a more global commitment relative to national military strategy:

PART A - Programs directly attributed to SWA as a part of the Rapid Deployment Joint Task Force effort.

Exercises & Environmental Training. Funding for JCS-directed exercises, SWA-oriented desert and mountain training for increasing numbers of RDJTFArmy units, a JCS CONUS-deployment exercise to a Mideast/SWA area for 2-3 weeks of joint/combined training. Examples: "Bright Star", "Gallant Knight", "Gallant Eagle".

	Fiscal year ($ Millions)		
Operation & Maintenance	81	82	83
Army	15	27	31
Navy	3	4	3
Air Force	2	3	4
JCS (Defense Agencies)	-	72	70

Water Support Equipment. Funding for equipment to support the RDJTF with portable water including well drilling equipment, purification units, semi trailer-mounted collapsible tanks, water distribution systems, and mobile water coolers.

Army	81	82	83
Other Procurement	36	62	25
Operation & Maintenance	-	-	-

Base Operating Support (BOS). Funding for naval and Air Force facilities in SWA.

Operation & Maintenance	81	82	83
Navy	17	22	30
Air Force	14	14	10

RDJTF Headquarters. Funding to maintain military personnel assigned to the RDJTF headquarters element, command and control equipment, and permanent headquarters facilities. Army and Navy headquarters elements are presently dual-hatted from other commands and are not separately funded.

Air Force	81	82	83
Other Procurement	-	4	-
Operation & Maintenance	2	5	6
Marine Corps			
Military Pay	1	1	3

Military Construction (MILCON). Funding to complete construction (excluding funds for planning and design) and upgrade to facilities needed to support the deployment and employment of RDJTF units in SWA. MILCON includes upgrade to sites such as Ras Banas (Egypt) as well as Diego Garcia, Mombasa (Kenya), Berbera (Somalia) and Masirah, Ihumrait and Seeb (Oman). FY 82 funds include MILCON funding contained in the '82 Supplemental request: Air Force - 70; Army -36. Funds are also included for an in-theater headquarters for CINC SWA.

Military Construction	81	82	83
Army	-	36	53
Air Force	109	263	238
Navy	23	131	40

Near-Term Prepositioning Force (NTPF). Funds the operation of 13 prepositioned ships presently at Diego Garcia. The NTPF ships carry the unit equipment and supplies for one Marine Amphibious Brigade (MAB) plus some selected Army and Air Force equipment. This program includes the cost of Marine maintenance, training, transportation, and port handling. This display also includes funding for the prepositioning of the 1,000-bed Rapidly Deployable Medical Facility (RDMF) and ammunition aboard ship at Diego Garcia.

Operation & Maintenance	81	82	83
Navy	116	176	224
Marine Corps	11	9	-

Cost Summary (Direct)

	Fiscal year ($ in Millions)		
	81	82	83
Operation & Maintenance	180	332	378
Army	15	27	31
Navy	136	202	257
Marine Corps	11	9	-
Air Force	18	22	20
JCS (Defense Agencies)	-	72	70

Aircraft Procurement	-	-	-
Army	-	-	-
Air Force	-	-	-
Other Procurement	36	66	25
Army	36	62	25
Air Force	-	4	-
Military Pay	1	1	3
Army	-	-	-
Marine Corps	1	1	3
Military Construction	132	430	331
Army	-	36	53
Navy	23	131	40
Air Force	109	263	238
TOTAL DIRECT	349	829	737

PART B - Programs indirectly related to SWA. These programs may have been initiated in support of SWA strategy but are required in support of our global military posture.

Combat Service Support. Raises the manning level of 37 active Army CSS units to ALO-1.

	81	82	83
	22	28	51
Army			
Operation & Maintenance	1	4	17
MPA	21	24	34

B-52H External Carriage. Provides an external conventional bomb carriage capability on 35B-52Hs assigned to the Strategic Protection Force (SPF).

	81	82	83
Air Force	2	-	-
Aircraft Procurement	1	-	-
Operation & Maintenance	1	-	-

C-141 Brigade Airdrop. Provides flying hours, research, development and procurement to support JCS requirements.

	81	82	83
Air Force	19	66	29
RDT&E	7	-	-
Operation & Maintenance	12	45	15
Aircraft Procurement	-	21	14

9WW. Classified project.

Aircraft Procurement	81	82	83
Army	-	9	21

Mobile Protected Gun (MPG) or Light Armored Vehicle (LAV) is a lightweight anti-armor, assault-capable weapon system that is transportable by both strategic and tactical aircraft in support of light divisions. The nearterm program is a joint Army/Marine Corps program to acquire an "essentially" off-the-shelf vehicle with proven reliability.

	81	82	83
Army	-	8	148
Weapon & Tracked Vehicle	-	8	37
RDT&E	-	-	111

Two and a Half Ton Truck. Wheeled tactical transport vehicle with 6-wheel drive which is particularly suited to desert employment. It has seven body styles: bolster, cargo, dump, maintenance, tank, tractor, and van.

Other Procurement	81	82	83
Army	-	-	-

Joint Communications Support Element (JCSE). Equips the JCSE to support a five component RDJTF. Total package includes Air Force portion of manpower and equipment to provide deployable communications capability in support of tow joint task forces simultaneously.

Other Procurement	81	82	83
Air Force	6	16	1

Intelligence Systems. Provides funds to procure and maintain a deployable automated intelligence system for the RDJTF headquarters. IOC is FY 82 but with limited enhancement through FY 87. Also provides funds to procure and maintain a secure facsimile network connecting the RDJTF headquarters with selected imagery exploitation facilities and component and supporting commands. IOC is FY 83.

	81	82	83
Air Force	5	3	3
RDT&E	-	-	-
Other Procurement	5	2	-
Operation & Maintenance	-	1	3

Worldwide Force Protection Bare Base Systems. Provides mobility equipment and shelters required for aircraft maintenance and operation, power production, environmental control, billeting, messing, sanitation and general housekeeping to support the deployment force in an austere environment. This equipment will satisfy a SWA aircraft beddown as well as support other worldwide commitments.

	81	82	83
Air Force	10	150	97
Aircraft Procurement	-	7	7
Other Procurement	10	95	69
MILCON	-	-	2
Operation & Maintenance	-	12	8
Stock Fund	-	36	11

SWA Vehicle Prepositioning. Provides for procurement and prepositioning of vehicles for general purpose, special purpose, firefighting, material handling and base maintenance support.

	81	82	83
Air Force	-	66	3
Other Procurement	-	66	2
Operation & Maintenance	-	-	1

Maritime Prepositioning Ships (MPS). Funds charter costs of 12-15 TAK-X (Roll-on/Roll-off) ships to preposition unit equipment and supplies for 3 marine Amphibious Brigades (MAB). The new MPS MABs will be available in FY 84, FY 85, and FY 87. The last MPS MAB will replace the NTPF MAB. This program includes Marine equipment and supplies, care-in-storage, transportation, maintenance and training for each MPS brigade.

	81	82	83
Navy (O&M)	-	-	-
Marine Corps	116	322	278
Operation & Maintenance	49	28	40
Other Procurement	67	294	231
Stock Fund	-	-	7

TAKR-X Fast Sealift Ships. Procures and converts 8 SL-7 container ships to primarily Roll-on/Roll-off configuration. This program also funds the operation of these 8 ships as a rapid sealift surge capability for response to contingencies on a worldwide basis.

	81	82	83
Navy	210	424	341
SCN	210	410	323
Operation & Maintenance	-	14	18

Munitions. Funding for procurement of munitions for prepositioning.

Other Procurement	81	82	83
Air Force	-	350	60

Watercraft, Water Support & Merchant Ship Cargo Discharge Equipment. Includes funds for procurement of general purpose equipment and to provide a capability for merchant ships to discharge cargo overtheshore in locations where proper pierside facilities are not available. This initiative enhances our capabilities to handle military cargo discharge using systems such as auxiliary crane ships and powered causeways. This initiative modernizes the Army watercraft fleet including heavy lift watercraft to transport M-1 tanks, and DeLong portable piers for container discharge in austere ports. These programs comply with the Defense Guidance to support the RDJTF with capabilities for logistics-overthe-shore (LOTS) and cargo-over-the shore- (COTS). Also includes funds to transfer bulk petroleum in a bare-base environment.

Army	81	82	83
Operation & Maintenance	-	-	-
Other Procurement	22	27	60
RDT&E	-	-	-
Navy (Other Procurement)	17	28	99

Medical Support, Hospital Ships, & Hospital Facilities. Provides funds to Staging Facilities, ten Mobile Aeromedical Staging Facilities, six Mobile Surgical Units and five Air Transportable Hospitals. This initiative also funds the acquisition/conversion or new construction of hospital ships to provide 2,000 beds and 24 operating rooms to support combat units ashore.

	81	82	83
Army (Other Procurement)	30	-	-
Air Force	-	20	11
Other Procurement	-	14	6
Stock Fund	-	6	5
Navy (SCN)	-	-	300
Marine Corps (Other Procurement)	-	25	-

Military Construction (MILCON). Funding for upgrade to sites which are essential to our capability for contingency operations SWA. These sites, however, also support our capability to deploy to or operate in other theaters. For example, the airfield complex at Lajes, Azores is critical to our airlift to SWA, but improvements there will enhance our rapid reinforcement of Europe as well as our operations in the Atlantic Ocean.

MILCON	81	82	83
Navy	105	46	79
Air Force	20	47	65

Aircraft Support Equipment & Facilities. Funds provide for the procurement of armament landing equipment and support equipment to maintain fixed and rotory wing aircraft. The equipment will be stored on MPS ships to support aviation units at operating sites.

Aircraft Procurement	81	82	83
Navy	-	66	66

Cost Summary (Indirect)	Fiscal year ($ in Millions)		
	81	82	83
Operation & Maintenance	63	104	102
Army	1	4	17
Navy	-	14	18
Marine Corps	49	28	40
Air Force	13	58	27
Aircraft Procurement	1	103	108
Army	-	9	21
Navy	-	66	66
Air Force	1	28	21
Other Procurement	157	917	528
Army	52	27	60
Navy	17	28	99
Marine Corps	67	319	231
Air Force	21	543	138
Military Pay	81	82	83
Army	21	24	34
Military Construction	125	93	146
Navy	105	46	79
Air Force	20	47	67
Research & Development	7	-	111
Army	-	-	111
Air Force	7	—	—
Procurement of Weapons & Tracked Vehicles			
Army	8	37	138
Stock Fund	-	42	23
Marine Corps	—	-	7
Air Force	-	42	16
Ship Construction			
Navy	210	410	623
TOTAL INDIRECT	584	1,701	1,712
TOTAL DIRECT	349	829	737
TOTAL INDIRECT	584	1,701	1,712
GRAND TOTAL	933	2,530	2,449

RDF EXPANSION OF HEADQUARTERS

Senator STEVENS. That is all I really asked for. I don't understand why, if the current levels are not classified, the outyears are classified.

Colonel RAFFERTY. It has to do with the size of the forces that we would be using, information that has to do with contingency plans.

Senator STEVENS. You mentioned some fairly expensive initiatives in this budget for RDF to expand headquarters, commit to long-term leasing of prepositioned ships, and accelerated training, but your scope has been limited to a Southwest Asia task force. Can you explain to us why there has been this policy change, why we are aiming the RDF, with this substantial commitment, to a task force capability in Southwest Asia?

General KINGSTON. Yes, sir, I can explain it, as my personal opinion. A joint task force according to the JCS definition is a temporary, multiservice organization. In this case it is temporary because it is in transition from being under the Readiness Command to joint status where I now have my own forces under my operational control and we will go into the unified command status.

The reason for the reduction in the scope of the commitment from worldwide to Southwest Asia was, again, the fall of the Shah of Iran, the Iranian revolution and the Russian movement into Afghanistan.

The existing two unified commands in the area—European Command, EUCOM, which is headquartered in Europe, and the Pacific Command, PACOM, which is headquartered in Hawaii—have no sizable military forces permanently stationed in the Southwest Asia area. To project forces from either one of those commands would take existing forces away from NATO or away from the Republic of Korea or project the 25th Division from Hawaii. That would be insufficient forces to handle the contingencies that we envision we may have to fight in that area.

So, the Rapid Deployment Joint Task Force was formed with forces that now have priority either under my operational control or priority for planning to be projected rapidly into the Southwest Asia area.

Right now we have no supporting facilities like we have in Europe and the Pacific. We are going into what we call a bare base environment. We do not have the strategic communications systems that we have linking PACOM and EUCOM headquarters. Our military presence in this area has been lacking for some time, as a matter of fact since World War II.

Senator STEVENS. You also deal in an area that has no NATO structure, no agreement from one country to another for joint defense, and you are dealing with an area of the world from which Western Europe has almost 90 percent of its energy requirements coming. They don't have any plan for defending the area. Am I to understand that our plan is to defend it alone?

General KINGSTON. Sir, I really cannot get into plans at this time, but generally, no, that is not correct. We are seeking assistance from countries that would invite us in. That negotiation is not being done by me or my staff; it is being done by State and OSD.

Senator **Stevens**. If your mission is a Southwest Asia task force, why do you want to put so much money in bricks and mortar at MacDill Air Force Base and tell us it will accommodate only one-half of the headquarters staff when finished?

General **Kingston**. The Air Force funding for the headquarters building was received in two increments. The first half is going up now. The reason for the headquarters being put there I cannot explain. That decision was made by my superiors. By being there, however, it does allow me to work very closely with the Readiness Command which has the responsibility for the deployment of forces overseas.

Senator **Stevens**. Didn't you mention that your headquarters is going to be separated by—what did you say in your statement—5 miles?

General **Kingston**. Five miles. I am in temporary headquarters down there now, sir.

COMMAND STRUCTURE PROBLEMS

Senator **Stevens**. You are going to have space only for half of your headquarters staff when it is finished. Where will the other half stay?

General **Kingston**. Where they are now, in temporary, rented trailers and in a B-52 alert bunker, an old B-52 alert bunker which was modified. I have 400-plus on my staff today. We are housing those people down there at this time. When the building starting construction this year is ready for occupancy by October of this year, that will take about 400 people. So between the split facilities I will be able to handle the complement of the full headquarters.

Senator **Stevens**. I went through a command problem with the Alaska Command when that was established. We were told we were supposed to get rid of these large commands that wasted so much manpower in terms of command structure and put them to work in units that were going to be more readily usable. Now here we have created the RDF.

It seems to me you have a rather unique command structure. You have a considerable number of people?

General **Kingston**. Yes, sir.

Senator **Stevens**. Why is that necessary? Is that necessary because we have to have an Air Force, Army, Marines, and Navy component, instead of having one person we have four at every level of your command?

General **Kingston**. That is not the case, sir. We do need four services in my headquarters because my headquarters needs a complete understanding of the unique capabilities of all four services.

One of the reasons we have a large number of people is that the functions being done by the Unified Command—that are being done by EUCOM, in the NATO area, and within the Pacific Command, particularly the headquarters in Hawaii and its people out among the other governmental agencies—we have to go in bare based. There is no existing military agency within my area, except we have some organizations in some of the countries—and I think you are familiar with them—and we have some security assistance responsibilities.

If we have to fight a war in that area, I will have to take the warfighting capability and command and control capability with me. That is the primary mission and the reason that we have gone up to 900. There have been no new personnel authorized to any of the services. The services, I wish to assure you, Mr. Chairman, have looked very closely at the figures and at every single person authorized in my headquarters, because those people have had to come out of the hides of the services.

All the services, the service chiefs and the Chairman of the Joint Chiefs of Staff, have approved my headquarters personnel.

STATUS OF READINESS COMMAND

Senator **Stevens**. Why couldn't you use the Readiness Command facilities at MacDill?

General **Kingston**. The Readiness Command facilities at MacDill are already, in my opinion, quite crowded, sir.

Senator **Stevens**. We were told last year by General Warner that as soon as the RDF became a separate unified command that he could foresee that the Readiness Command would be disbanded, abolished. Is that going to happen, General Brickel?

General **Brickel**. I don't think so. I don't think it should happen. The jobs that are there need to be done and remain to be done. Those jobs are to provide the conventional reserve of forces of the United States, not only for the RDJTF but also for Europe and the Pacific and other Commands. If your national posture is to have a large portion of our forces in the United States ready to go where they are needed, then those forces must be trained in joint exercises and have joint tactics, techniques, procedures for operating. They must be commanded during their deployment. All of those are functions of the Readiness Command, not to mention the planning which is associated with them.

Senator **Stevens**. Apparently the Readiness Command was not prepared to go to Southwest Asia or we wouldn't have this Rapid Deployment Force?

General **Brickel**. We are not structured to go and fight a combat operation. General Kingston's headquarters is. Our job is to do the things that are described, plus the planning that is necessary. If we had to go and do such an operation we would have had to create a joint task force. In other words, the RDJTF.

General **Kingston**. Mr. Chairman, if I may——

Senator **Stevens**. Yes. I am confused. We have the Readiness Command, the Joint Deployment Agency. We have 1,100 people in there. We have RDF now separated out from this, yet we don't see any personnel decreases in the agencies you are spinning off from. We see those are going to be manned at the same level, so we build another level in terms of this readiness concept.

General **Brickel**. May I try to put a sense of historical perspective on that, sir?

Senator **Stevens**. I don't think you need to do that. I remember when President Carter made the statement. I don't know if you heard the statement made by the chairman of the Armed Services

Committee, the chairman of the Appropriations Committee and myself at the time. It still does not make any sense to me. I think it is confusing even more in terms of this organization.

General **Brickel**. In terms of this manpower, when Strike Command was in existence at MacDill Air Force Base to do the same kind of mission that the RDJTF is charged with, there were between 700 and 900 personnel assigned. When that organization was descoped and refocused as Readiness Command to do the kinds of jobs that I have described, sir, then the numbers dropped to roughly 360.

The Joint Deployment Agency is an additional 160; 120 of those 360 people that I have described, 120 of those serve both agencies in terms of computer support, communications, electronics, and that sort of thing, so there is a synergism there. That is the headquarters force among those two agencies.

Senator **Stevens**. I recognize my colleague here, Senator Andrews. Go ahead.

Senator **Andrews**. Thank you, Mr. Chairman.

JTF MANNING

What about the manning of the JTF? As I understand it, those units are going to remain at their existing locations; they will be assigned to their parent commands. In case of emergency they revert to you; then they are going to be unavailable for their second mission, which is generally the defense of NATO. Does your mission take priority over the other?

General **Kingston**. Today, my mission takes priority for those forces that are under my operational control.

Senator **Andrews**. What do you mean "operational control", the 900 you are talking about?

General **Kingston**. No, sir. The 900 are my headquarters. Those are assigned to me and under my command.

Senator **Andrews**. So, you take priority over any other assignment those troops might have?

General **Kingston**. Those 900, yes, sir. Now, I have existing Army units and Air Force tactical fighter squadrons that are under my operational control today.

Senator **Stevens**. They take priority over the other assignments for those units?

General **Kingston**. If they are deployed, yes, sir. For planning purposes I have those units and additional Army, Air Force, Navy, and Marine units.

Senator **Andrews**. So you have priority over any of these units that are assigned to your operation?

General **Kingston**. That is correct, sir. However, if something should come up in Southwest Asia and somewhere else, my units have multiple tasks. It will be up to the JCS and OSD and National Command Authorities to do the adjudication of which units will go where.

GLOBAL CAPABILITY OF RDJTF MISSION

Senator **Andrews**. That brings up another question. When you say Southwest Asia or elsewhere, does that mean the RDJTF mission is still global?

General **Kingston**. I have that capability.

Senator **Andrews**. I know you have the capability; the point is that it would appear that the old concept of a global non-NATO capability has been restricted largely to Southwest Asia. Do you still maintain that global capacity in your planning?

General **Kingston**. No, sir, in my planning I do not. My planning is restricted to the area for which I will eventually become responsible.

Senator **Andrews**. Then you are saying you are concentrating on planning on Southwest Asia?

General **Kingston**. Without getting into classified information, that is correct.

ROLE OF RESERVES AND NATIONAL GUARD IN RDJTF

Senator **Andrews**. What role will the Reserves and the National Guard play in your RDJTF?

General **Kingston**. They will play a significant role.

Senator **Andrews**. Are you satisfied with their skill level and training?

General **Kingston**. Yes, sir, I am.

Senator **Andrews**. Are they called up as initial units or are they called up as backup units to fill in for the regular Army?

General **Kingston**. In some cases both, depending on what their mission is and their functions and how they will support.

Senator **Andrews**. Do you feel the condition of equipment in these Guard and Reserve units is generally OK?

General **Kingston**. I will defer to General Brickel on that one.

Senator **Andrews**. Do you feel the equipment and material that the Guard and Reserve units have is in good enough shape?

General **Brickel**. It needs improvement. It depends on the specific areas. For example, roughly 50 percent of the airlift that is involved in the deployment is manned by Reservists, and that is in first-rate shape; it needs the additional spares that are in the budget to support the utilization rates needed to make the lift.

The Air Force fighter squadron reserve units have limited first-line equipment but they are being modernized now to get F-16's, A-10's, which will give them much better capability.

With respect to the Army units, there is a strong need for new ground equipment to flesh out those units with modern, firstline fighting equipment.

Senator **Andrews**. Are you working on that and is that chargeable to your mission or to the regular missions of the units involved?

General **Brickel**. That is being worked by the specific services and charged to the accounts of the Army, Air Force, and other services.

AIR FORCE ROLE IN RDJTF

Senator **Andrews**. Apart from the airlift mission, does the Air Force have any role to play in the RDJTF?

General **Brickel**. A substantial role.

General **Kingston**. Yes, sir, my Air Force component headquarters is the commander of the Ninth Air Force at this time. He is vitally involved in the RDJTF mission, in planning and exercises.

HOST-NATION BASING

Senator **Andrews**. Doesn't that require, as far as tactical air being called in, the availability of host-nation basing?

General **Kingston**. Yes, sir.

Senator **Andrews**. And that has been arranged for and that is in your planning?

General **Kingston**. As I said earlier, Senator, I require some assistance from host nations, naturally, if we are called in. I am not in the negotiations for that; that is at a higher level in the State Department and the Department of Defense.

Senator **Andrews**. The point is that you are responsible for this action; you are responsible for moving with the RDJTF; you have to know which host nation support bases have been identified for prepositioning equipment?

General **Kingston**. Yes, sir.

Senator **Andrews**. You cannot all of a sudden whistle up the boys in the State Department to try to tell you where to go when the order to go is given?

General **Kingston**. No, sir. I have been given my priorities. I will be glad to give those to you.

Senator **Andrews**. But you have the host-nation support bases identified?

General **Kingston**. I have the ones that I feel I would like to use, yes, sir.

Senator **Andrews**. Given what is happening in the Falkland Islands, are you satisfied with the planned capability for naval gunfire, for instance? Is this capability being integrated in your planning and training?

General **Kingston**. It is, sir.

Senator **Andrews**. Are the four battleships going to be the big Navy gunfire support?

General **Kingston**. I leave that up to the Navy to determine that.

SEAFIRE PROGRAM

Senator **Andrews**. I understand the Navy has canceled their Seafire program, which is the laser-guided naval gun which I think would be uniquely deployable in the future. Did you have any input into the cancellation?

General **Kingston**. No, sir.

Senator **Andrews**. Did they ask you if that kind of fire power would be helpful in your operation or not?

General **Kingston**. Not directly, no, sir.

Senator **Andrews**. Do you suppose they should have?

General KINGSTON. I would assume that that was discussed between naval authorities and the Joint Chiefs of Staff, sir.

MEDICAL SUPPORT CAPABILITY

Senator ANDREWS. Looking at the complete, overall picture then, what medical support capability do you have? Do you have that planned to support the RDJTF?

General KINGSTON. Yes, sir, I do. My components do.

Senator ANDREWS. Do you have some hospital ships assigned to your site of operations?

General KINGSTON. No, sir.

Senator ANDREWS. Then how do you know you have them?

General KINGSTON. I know exactly the status of my medical support. I will be glad to submit it for the record. It is classified. I will tell you it is not adequate.

[The information follows:]

MEDICAL SUPPORT UNITS

All Services have included, in the fiscal year 1983 budget, funds for improving medical support. These funds will purchase additional hospital beds, ancillary units, individual and unit training programs, research and development, medical supplies, facilities for evacuating patients, and aeromedical evacuation crews.

Senator ANDREWS. It is not adequate?

General KINGSTON. That is correct.

Senator ANDREWS. In other words, for moving into an area like this, you don't have identified those hospital ships?

General KINGSTON. I have identified my requirements, sir.

Senator ANDREWS. That is fine, but you know, Pago Pago can identify their requirements and say they have an RDJTF going, but if you have not only not identified but not located, you don't really have much, do you?

General KINGSTON. Now you are understanding why this is a very interesting job.

Senator ANDREWS. I am sure it is a very interesting job; it sounds like you are going to go out there on you own and "Yahoo" at that. Custer tried that and got into some trouble in my part of the country.

A key element in this kind of readiness is availability of skilled manpower. It there sufficient skilled manpower available to support such a surge requirement?

General KINGSTON. I will pass this to General Brickel for specifics, but the services have enhanced the readiness of the units assigned to the Rapid Deployment Joint Task Force and the Air Force has come in with a figure.

Senator ANDREWS. You are satisfied that that type of staffing is there?

General KINGSTON. The upgrading.

Senator ANDREWS. Is the planned command and control communication and tactical intelligence capability adequate to support a full-scale RDJTF employment?

General KINGSTON. Full scale, no, sir.

Senator ANDREWS. I don't know how you are going to go with anything other than full scale.

General **Kingston**. We have to go with what we have.

Senator **Andrews**. When do you plan to have that up to snuff?

General **Kingston**. I can give you what we have.

Senator **Andrews**. Is that available in other places, but it has not been earmarked for you, or don't you have it?

General **Brickel**. If I may, sir, the communication support comes from a joint communications support element which is a REDCOM unit that will provide the communications support for the RDJTF. It is short in specific equipment.

Senator **Andrews**. Is it short in specifics or does it lack compatibility?

General **Brickel**. The compatibility has been worked out. For all four services it has been worked out, but it does need better satellite communications and better long-haul communications to operate in a jamming environment.

Now, the specifics of that, what the systems are, of course, are classified.

Senator **Andrews**. I don't know whether we ought to label this overall task force a paper tiger. I would feel comfortable if we could get this fleshed out and ready to go. I imagine that is one of the things that concerns you?

General **Kingston**. Yes, sir, 2 years ago, if the United States had had to send a sizable force to fight a war in Southwest Asia, no military commander at that time could have told you what forces would go, how long it would take them to get there, how they would be sustained, how they would get there, by sea or by air, and who would command them.

Today I can do that.

Senator **Andrews**. In 2 years we have gotten to a level where we have identified the problem but we have not solved the problem.

Thank you, Mr. Chairman.

Senator **Stevens**. Senator Schmitt.

COMMAND STRUCTURE PROBLEMS

Senator **Schmitt**. Gentlemen, there has been concern expressed in this committee, and I think implicit in the questions which you have just been answering, that there are too many players in the command structure. I detect there have been some definite improvements over the last year, but in an examination of this issue last year it was felt that the RDJTF to some degree already existed in the Marine Corps and Navy relationship to certain types of activities and their organization was based to some degree on a rapid deployment of Marine forces integrated with the naval activities.

The committee concluded in its report:

> The committee therefore strongly suggests that the Secretary of Defense designate the U.S. Marine Corps as the lead service for command and planning the RDJTF missions. It is the belief of the committee that the Marine Corps, with Navy support, is most capable of meeting the missions of the RDJTF. The Secretary of Defense should provide the Marine Corps and the Navy with the equipment, logistical support and authority necessary to meet their RDJTF mission.

How do you view this language in the context of what has happened in the last year?

General **Kingston**. I believe the United States needs the unique capability of all four services. While we have a very credible and capable Navy and Marine team, I don't believe they could satisfy all the potential war-fighting requirements that would be placed on this country if we had to go to war in Southwest Asia.

Senator SCHMITT. Do they provide the core around which these other capabilities are being built, since they already exist in a war-fighting capability for at least portions of the RDJTF mission?

General KINGSTON. They could provide on the surface the lower spectrum, the lesser war-fighting capabilities, and on the assistance of certain evacuations near shore, things like that. They do not have—and I don't want to in anyway imply the nonprofessionalism of the Navy or the Marine Corps—they just don't have the physical capability to establish and maintain a theater component headquarters that will be required to conduct major operations in Southwest Asia.

THEATER OPERATIONS THEORY OF RDJTF

Senator SCHMITT. When you talk about major operations, aren't you extending beyond the original intent of the RDTJF? You are talking about theater operations?

General KINGSTON. Yes, sir.

Senator SCHMITT. The original intent was to deploy rapidly into a relatively limited situation, was it not, what you hope you could contain?

General KINGSTON. If we could get there with sufficient force as deterrent, and if deterrence fails, we still must be prepared to go to war.

Senator SCHMITT. But that is expanding into a larger theater operation; it is somewhat beyond what I think this committee has generally thought the RDJTF concept was designed for.

General KINGSTON. The original concept in 1977 was to rapidly deploy forces from the four services that could handle the problem rapidly on a worldwide basis, with the exception of NATO and the exception of the Republic of Korea, South Korea, where we already have permanent forces established. Yet that was a concept.

When the headquarters was formed in March 1980, the concept had changed to going into Southwest Asia, not worldwide. The forces assigned to me have been on the basis of a multitude of contingency plans which in some cases required no military forces at all.

Senator SCHMITT. Let me make sure I uderstand. Are you saying that the Rapid Deployment Joint Task Force concept now is one of theater operations?

General KINGSTON. I am in the transition period.

Senator SCHMITT. Primarily Southwest Asia?

General KINGSTON. That is correct. I am in the transition period of going into a theater, a unified command, with a specific theater in Southwest Asia.

Senator SCHMITT. With respect to meeting the contingencies that are less than theater, that are Falkland Islands in scale or a variety of other circumstances one might imagine occurring in various parts of the world, this is no longer the emphasis of your command?

General KINGSTON. That is one spectrum of the emphasis, yes, sir.

Senator SCHMITT. Is developing a theater capability for Southwest Asia compatible with these other missions?

General KINGSTON. The area is not compatible because we have no bases, no host nation support, so to speak. We rely heavily on the carriers and we would rely heavily on aircraft carrier aircraft. We are prepared, and I am charged with being prepared, to conduct operations over the full spectrum of warfare, sir.

Senator SCHMITT. Thank you. I guess we have a vote, Mr. Chairman.

Senator STEVENS. Yes, this is a good place to recess. We will stand in recess.

[Recess.]

Senator STEVENS. Gentlemen, I don't know whether my colleagues are coming back. You can see there are at least three Members of the Senate who are concerned and when we were on the floor and talked to several others, I think every Member of the Senate I talked to expressed the same concern over what we think we are hearing.

We think we hear you tell us that this is a new third theater of war. It is an addition to the European theater and the Pacific theater. Is that right?

General KINGSTON. Senator Stevens, yes, that is correct, and I would like to amplify the reason why, without getting into classified subjects.

Right now, through this theater you have the boundary between two existing unified commands, European Command and Pacific Command. It has been determined by my superiors that this area is vital to the interests of the United States. If we were to go to war and the forces, wherever they came from, were projected into that area and they crossed this boundary between the two existing unified commands, the command structure and command responsibility at that time would also change.

So, by forming a new unified command in this area, my superiors have put the boundaries with sufficient space on the flanks that, if necessary to protect our interests in the Persian Gulf region, we could fight a war in that area under one single command.

Senator STEVENS. We thought we were talking about strategic mobility, global strategic mobility, with our forces. Now it appears in terms of the RDF, that we are talking about one theater of the RDF; is that right?

General KINGSTON. That is correct.

Senator STEVENS. I thought I was listening to testimony about a global concept of strategic mobility when I listened to the testimony on requirements of airlift and sealift. Now it seems fairly apparent to me that most of that is dedicated to this command; is this not so?

General KINGSTON. It is, regardless of where we project our forces and for whatever reason, whether it is reinforcing other commands, or even after becoming a unified command. Whether we take the forces from NATO or the forces that reinforce NATO from the continental United States, that sealift or that airlift would be used. It is not just primarily for the Rapid Deployment

Joint Task Force. It will enable me to get there with more forces more rapidly.

THEATER PRE-POSITIONING

Senator **Stevens**. We assume that we have pre-positioned tanks and equipment in NATO?

General **Kingston**. Yes, sir.

Senator **Stevens**. We assume we have them in the Pacific in terms of theater. If we are talking about strategic mobility in terms of airlift for this new airlift or sealift, we are basically talking about the RDF. At least we thought we were when we justified it last year.

Now are we talking about strategic airlift and strategic sealift for a new theater, which is the Persian Gulf?

General **Kingston** There will be a new theater, yes, sir. I will defer to General Brickel.

General **Brickel**. If I may amplify on your question with respect to NATO, in the deployment and support of NATO in the first 90 days of that deployment, we will move 1.2 million people from the United States, 4 million tons of cargo and 40,000 barrels of POL in our current deployment planning. So there is a substantial requirement for lift, airlift, and sealift, to support NATO, the Atlantic Command, and the Pacific Command as well.

RELATIONSHIP OF RDJTF TO NATO

Senator **Stevens**. Not the same kind of airlift. You can do that with 747's. You don't need C-17's and C-5N's to go to NATO. We have been talking about the strategic airlift. They don't need the same kind of sealift even to go to NATO. I think that we are looking at something entirely new. As a matter of fact, I talked to Senator Tower and asked him if he had heard this before in his Armed Services Committee, and he said he didn't know what I was talking about. He didn't believe I knew what I was talking about, as a matter of fact. Maybe I don't, but what I am hearing here is something that is brand new, that no one has ever pointed out to this committee before. I am not sure. What is the relationship of the RDJTF to NATO then?

General **Kingston**. The relationship is that I work with and through the European Command when I go on exercises in their current area of operation.

Senator **Stevens**. Are your assets part of the supplemental support for NATO?

General **Kingston**. Sir, my Army forces, which consist of the XVIII Airborne Corps HQ consisting of the 101st Airborne Division and the 82d Airborne Division, plus the Ninth Air Force and 11 tactical fighting squadrons, are multitasked. They have the requirements to participate in several war plans.

Senator **Stevens**. So, if the Soviets move on NATO and move on Southwest Asia at the same time, you have a problem?

General **Kingston**. The National Command Authorities have a problem, yes, sir.

Senator **Stevens**. Gentlemen, I think under the circumstances we are just going to have to recess this hearing and I am going to have to discuss with the full committee the prospects of having a full examination of this. I think it goes across the whole question of other items--prepositioning, sealift, and airlift—items that are in this budget.

We will consider whether we want to ask the Secretary to come back. The three of us were that concerned about what we heard that we cannot understand what we have heard. We must have a greater attendance. We obviously can't take this matter up while the DOD bill is on the floor. We just can't get the people here to participate in a hearing of this type.

But I find it strange that we were not notified that the recommendation of General Warner had been abandoned, that we were going to stand down the readiness command.

I find it difficult to believe that we have had these hearings with policy level people and we did not hear about the concept of the emergence of a new, third theater for our operations and I do not understand some of the testimony we have heard concerning airlift and sealift if the RDF is, in fact, assigned to a primary mission of Southwest Asia.

It takes on a whole new spectrum as far as I am concerned in terms of this airlift. I think we had better have some meetings with some of your people about where we are going.

I think most of the questions I would ask would be classified. I think we need to know what arrangements have been made with Iran, what arrangements have been made with other countries in this area, and what arrangements have been made with the nations of the Indian Ocean, and what participation can we expect from Western Europe.

If we are going to have a new theater, it raises some interesting problems. If we can support this theater from forces that are maintained in this country, it raises the question of why do we need to maintain so many troops in Europe.

General KINGSTON. Mr. Chairman, I would like to offer you and all the members of your committee, either at my Washington liaison office in the Pentagon or at MacDill where my headquarters is, a complete classified briefing on my mission, what we have been doing since we came into existence and a projection as to where we are going.

Senator STEVENS. With due respect, General, and I think we want that, I think we are going to have to talk to some of the people in the Secretary's office, if not the Secretary himself, to ascertain the background of the change in policy and how it impacts this budget, because if we are looking for airlift exclusively for the Persian Gulf region, that is one thing. If we are looking for a worldwide airlift, it is an entirely different thing. I thought we were looking for a global RDF and that is what we were supporting. I think this is what this committee thought they were supporting last year.

We will be in touch with you and we will reschedule this meeting. I think we ought to ask the Secretary's people to come to S-407 in the Capitol and explain this policy to us. We will have our regular meeting tomorrow for the Guard and Reserve programs.

Thank you very much.

SUBMITTED QUESTIONS

At this time, we will insert in the record additional committee questions together with the Department's responses.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

ADDITIONAL COMMITTEE QUESTIONS

QUESTION: General Kingston, you mention in your statement that internal programming of funds for the RDF has been like shooting at a moving target. This analogy fits appropriations as well. Are the current FY83 funding requests for RDF related activities driven by your organization or the military Services?

ANSWER: It is a combination of the requirements of the Services, Unified Commands and the RDJTF. Since all programs obviously cannot be funded, it is my responsibility to insure that my critical shortcomings receive appropriate priority during the development and subsequent OSD program review process.

QUESTION: You also mention that the cost of programs for sealift, airlift and mobility programs cannot be directly attributed to the RDF because these assets could have a role in other areas. To what extent is the RDF requirement "competing" with other military objectives?

ANSWER: RDF requirements for airlift and sealift do not "compete" with other military objectives. My staff has identified the requirements to meet the threat in Southwest Asia; however, these enhancement actions will improve the capability of the forces assigned to US commanders throughout the world.

QUESTION: I am sure you have heard, General Kingston, the RDF criticized as being neither rapid nor deployable and characterized as a top-heavy bureaucracy. With the limited information available to us, it is difficult to assess that criticism. Please give your response.

ANSWER: The characterization is incorrect. The RDJTF provides the United States the capability to rapidly deploy and employ forces to remote areas. The HQ has demonstrated this capability during several exercises both within and outside of the United States. One reason we require more personnel than one would anticipate is that this HQ must deploy with its war-fighting capability and command and control to areas where there is no in place infrastructure. In addition, we do not have component commanders in the area to absorb some of the functions that must be performed. How rapidly we can deploy is limited strictly to the capability of the airlift and sealift forces available to support us.

QUESTION: General Kingston, as of January, the RDF staff level was some 334 personnel. By next year the staff, is expected to grow to over 950. Why is the dramatic increase required in one year?

ANSWER: The increase in personnel is required for assumption of Unified Command status on or before, 1 January 1983. The justifications for this increase are: the inherent requirement to forward deploy a headquarters element to the area of responsibility while the main headquarters remains at MacDill AFB; the workload that will result with assumption of responsibilities for Foreign Military Sales for our assigned area -- the largest FMS program of any region of the world; assumption of responsibilities for military construction, which is also very significant in scope with the responsibility divided between the Services and two existing unified commands (EUCOM/PACOM); and the increased operational planning responsibility that is anticipated with the area of operations for which the command will be responsible. When considering the magnitude of these missions and the importance to the viability of our country in the near term, this increase in staff is considered to be a modest investment. It compares very favorably to the manning levels of currently existing unified commands, which are geographically located within their respective areas of operations and have had years to establish support structures.

QUESTION: Your statement mentions the need for RDF command expansion to handle added responsibilities. What are those added responsibilities?

ANSWER: Added responsibilities are inherent in our directorates to transition to Unified Command status. Some of these added responsibilities include:

- Planning for and execution of operations in contingencies, limited war and general war;
- Planning and conduct of operations other than hostilities;
- Planning for and administration of the military apects of security assistance, and
- Maintaining relationships and exercising authority in accordance with current directives pertaining to Unified Commands.

QUESTION: General Kingston, you state that current military construction projects, when completed at MacDill Air Force Base, will only accommodate one-half your headquarters staff. On this basis alone, wouldn't it be more prudent to slow down personnel increases until facilities are available?

ANSWER: No. Extensive studies were conducted over the past two years to assess our manpower needs as a separate joint task force and eventually a unified command. To operate at less than the manpower required to fulfill our mission is not feasible. From the viewpoint of the personnel, it would create unnecessary hardships.

In most cases, individuals are notified of their assignment 90 to 180 days prior to their reporting date. Upon notification, many commitments are made in anticipation of the projected move. For example, selling a home, breaking a rental agreement, termination of employment by the spouse, etc. Also, most relocations are made during the summer months where the disruption to the family is minimized, particularly for those with school age children.

In summary, I believe it is more preferable to be temporarily crowded or congested pending the completion of facilities than to slow-down the assignment process. Existing facilities can house the remainder of the staff on a temporary basis, although the staff will be split between two locations and the older facilities are extremely limited in meeting functional requirements.

QUESTION: Why can't you utilize existing administrative facilities?

ANSWER: In January 1982, a USAF team examined RDJTF facility requirements at MacDill AFB and concluded that there were no other facilities in the CONUS which were adequate for timely and effective beddown of the RDJTF headquarters in terms of mission accomplishment. Paradoxically, there were no available vacant administrative buildings located at MacDill suitable for our use except for those which we are currently using on a temporary basis until our own facilities have been completed. Finally, 261 personnel were already located at MacDill, and it would have been costly, on a personal basis, to transfer them to another location when there were no significant advantages accrued from a readiness viewpoint.

QUESTION: Doesn't creation of a whole new Unified Command permit some offsetting reductions in the military bureaucracy?

ANSWER: No, not at this time. The existing unified commands all have valid missions and responsibilities. Manpower teams periodically review the roles, mission and functions to determine if the manpower allocations are valid. My headquarters, as well as the other Unified Commands, will be reviewed during this process. Some manpower decreases may result from this review.

QUESTION: Between the core staff at REDCOM, the Joint Deployment Agency (JDA) and the support elements, over 1,100 personnel are assigned to these activities. When the RDF separates from REDCOM, do you expect these personnel levels to decrease?

ANSWER: As the RDJTF separates from USREDCOM, the manpower authorizations will remain at the same levels. The Joint Deployment Agency (JDA), the Joint Communications Support Element (JCSE), and the Joint Special Operations Support Element (JSOSE) receive direction from the Joint Chiefs of Staff and have 683 manpower authorizations of the 1,100 personnel referenced above. These three units provide support to RDJTF; Headquarters, USREDCOM; and to other commands worldwide. The mission and functions for Headquarters, USREDCOM, will remain constant with the same manpower authorizations. In summary, the USREDCOM mission has not been reduced. Rather, the RDJTF mission has been added to previous tasking.

QUESTION: Comparing the material in support of the budget and the information provided to staff at MacDill AFB reveals some conflicting figures. A total REDCOM civilian and military strength of 614 was stated for the FY 1982 budget. However, MacDill AFB officials established that nearly 1,100 civilians and military required support. What could explain the discrepancy?

ANSWER: The figure 614 reflects Fiscal Year 82 manpower authorizations for HQ USREDCOM, JDA and direct supporting elements. This figure does not include Fiscal Year 82 manpower authorizations for the Joint Communications Support Element (472) nor the Joint Special Operations Support Element (43). Although these units receive logistical and administrative support from HQ USREDCOM, they are JCS controlled units and are budgeted for separately. The Air Force has the responsibility for providing base support to all joint activities located at MacDill AFB. The total for these activities, as listed above and excluding the Rapid Deployment Joint Task Force, is 1129 for Fiscal Year 82.

QUESTION: Similarly, the budget justification established a total military strength of 115 for RDF headquarters, but MacDill established the actual strength closer to 330. How were the additional military accounted for?

ANSWER: The source document for this question has been misinterpreted. The initial total military strength for the RDJTF headquarters was 258. In October 1981, 3 additional Air Defense Officers were added and, in May 1981, an additional 71 Congressionally-mandated Tactical Intelligence and Related Areas (TIARA) positions were authorized bringing our total military authorization to 332. The 115 figure is not accurate. Subsequently, to support the responsibilities of a Unified Command, 967 personnel have been authorized by 1 January 1983.

VARIANCE IN PROCUREMENT

QUESTION: The FY 1982 budget included $17.8 million for Other Procurement. In FY 1983 this estimate drops to $3 million. What's being procured and what causes the year to year variance for this account.

ANSWER: The Other Procurement appropriation funds specific equipment and systems. It is not a "level-of-effort" account. Variances are to be expected depending on the requirements. In FY 82, we are procuring tactical C2 equipment for the Joint Communications Support Element (JCSE) to support a deployed RDJTF Headquarters and the FY 83 procurement will provide additional C2 capability for the JCSE.

JUSTIFY DOUBLING OF O&M BUDGET

QUESTION. The FY 1983 budget justification demonstrates an increase of 56 military and 4 civilians for REDCOM and RDF personnel combined. However, the budget request is some $8.5 million higher in O&M than FY 1982. Obviously the increase in personnel does not fully account for the funding increases. What are we doing differently in FY 1983 to justify this near doubling of the O&M budget?

ANSWER. The $8.5 million increase must be separated into its components to be fully explained ($M):

Classified Project	+$5.0
RDJTF	+ 1.6
REDCOM	+ .6
JCSE	+ 1.5
Total Increase	$8.7

Both the FY 1982 and the FY 1983 budget estimates contain funding for a classified project which has no relationship to actual day-to-day unified command headquarters operations ($2.0 million and $7.0 million respectively). The growth in this project accounts for the majority of the change in funding between fiscal years.

The remaining growth is divided between RDJTF, REDCOM, and JCSE. Both RDJTF and REDCOM are undergoing directed mission changes requiring increased funding support. The JCSE has also received expanded mobility taskings as well as additional equipment requiring increased O&M support.

Subsequent to the submission of the FY 1983 President's Budget, the RDJTF Headquarters received an increase in personnel authorizations from 569 to 967. Incremental costs associated with this increase have not yet been determined.

HQ BUDGET FOR RDJTF

QUESTION: For the record, please submit a detailed justification of the headquarters budgets for the Rapid Deployment Joint Task Force, the U.S. Readiness Command, the Joint Deployment

Agency, and support elements for the current year and FY 1983. Include in this justification the estimates by appropriation account for each of the organizations and the military and civilian personnel strengths. Further, please reconcile this information with the budget justification backup material provided by the Air Force; the lead service for the RDF, REDCOM, JDA and support elements budgets.

ANSWER: The funds requested for the headquarter budgets for the Rapid Deployment Joint Task Force (RDJTF), U.S. Readiness Command (REDCOM), Joint Deployment Agency (JDA) and support elements--Joint Special Operations Support Element (JSOSE) and Joint Communications Support Element (JCSE)--are essential to insure that the U.S. will be able to respond quickly, with appropriate force, to any contingency worldwide. Achieving this capability requires the joint planning and operational control provided by these organizations. ($ M)

RDJTF	Operation Main	Military Const	Other Proc	Military Pay	AF End Strengths Mil	Civ
FY 82	$4.7	$7.7	$4.3	$4.4	168	4
FY 83	6.3			4.2	160	4

In April 1982 the Secretary of Defense announced that the RDJTF would transition to unified command status, with responsibility for the Southwest Asia region, on 1 Jan 1983. The new command will acquire responsibility for all planning and operations in that geographical area, currently divided between EUCOM and PACOM. The changed status requires increased planning and deployment capability. To support this increased requirement, the JCS have approved Air Force manpower increases of 151 military and civilians in FY 83. These positions were obtained through shifts within current Air Force authorizations. Operation and Maintenance (O&M) funds will support day-to-day, in-garrison activities, training and exercise deployments, and required coordination and oversight activities in the Southwest Asia region. As executive agency, the Air Force provides operational support for all assigned personnel, regardless of service. This amounts to 337 personnel in FY 82 and 640 in FY 83. Increased funds are required to support the population growth in both Air Force and other service personnel as well as the increased responsibilities accompanying unified command status.

Military Construction (MILCON) funds supported construction of expanded administrative and support facilities for RDJTF. Facility completion is projected for 1 Oct 82. Other Procurement funds procure necessary equipment to establish a command/control center for the unified command. The center will be installed in the new headquarters facility. Military pay provides funds for assigned Air Force personnel only. The revised manpower authorizations result from internal Air Force movements and do not require additional funds in FY 83.

REDCOM	O&M	MILCON	Oth Proc	Mil Pay	AF End Strength Mil	Civ
FY 82	$5.3	$8.7	$8.9	$2.9	106	64
FY 83	5.9		2.9	2.9	106	64

REDCOM is tasked to provide a reserve of general purpose forces which may be deployed in support of another unified command or as a seperate task force in unassigned areas of the world. O&M funds support REDCOM's requirement to prepare and review contingency and operational plans, conduct and evaluate joint readiness exercises, develop joint tactics, techniques and procedures, and the deployment of assigned forces. Funds support operations of all assigned personnel, including 145 assigned from other services. MILCON funds supported construction of additional administrative support facilities for REDCOM/JDA/JCSE. Other procurement funds purchase additional communications equipment necessary to ensure adequate command and control between REDCOM deployed forces and the national command structure. Military pay supports Air Force assigned personnel. Not shown is a increase to assigned manpower of 35 military and 12 civilian positions which would be obtained from internal Air Force realignments.

					AF End Strength	
JDA	O&M	MILCON	Other Proc	Mil Pay	Mil	Civ
FY 82	$.5			$1.2	41	15
FY 83	.6			1.2	41	15

The JDA is tasked to coordinate all aspects of planning, land, sea, and air movements of forces mobilized in support of established/proposed contingency plans. These plans are essential to ensure that forces can respond in a timely manner. O&M funds support required planning and simulation activities. Support is provided for 90 additional personnel assigned to joint billets. Military pay supports Air Force personnel only. An increase of 9 military and 11 civilian positions has been proposed to the JCS since the President's FY 83 Budget was submitted.

					AF End Strength	
JSOSE	O&M	MILCON	Other Proc	Mil Pay	Mil	Civ
FY 82	$.1			$1.2	64	-
FY 83	.1			1.2	64	-

The JSOSE is responsible for keeping abreast of the latest information available on unconventional warfare/special operations. They provide expertise and assistance to the other unified/specified commands. O&M funds support day-to-day operations and travel required to receive and conduct training. Funding includes support for 29 joint billets. Military pay supports assigned Air Force personnel. A proposal to reduce manning in FY 83 by 50 enlisted positions was made subsequent to the submission of the President's Budget.

JCSE	O&M	MILCON	Other Proc	Mil Pay	AF End Strength	
					Mil	Civ
FY 82	$3.1		$9.4	$5.1	308	29
FY 83	4.6			5.1	308	29

The JCSE provides mobile communications capable of interfacing with all components of a joint task force and the national command authorities. It is deployed in support of contingency and disaster relief operations. O&M funds support training, travel, exercise and actual deployments. Increased funding in FY 83 is required to support additional equipment procured in prior years as well as the additional training necessary to operate the multi-service equipment. Funds support 247 additional personnel assigned from the other service components. Other procurement funds were used to obtain tactical communications equipment for support of a joint task force with up to five components capable of operation from a bare base location. Military pay supports Air Force assigned personnel only. Not shown is a decrease to assigned manpower of 99 military and 13 civilians that was made subsequent to the submission of the President's Budget.

QUESTION: To the extent that we can discuss deployment scenarios in an open hearing, please describe the contingencies for which you are currently planning.

ANSWER: The RDJTF plans for contingencies ranging from a show of force for an intra-regional threat to a full scale Soviet invasion.

QUESTION: If Soviet military forces entered Iran, by invitation or otherwise, on a scale similar to Afghanistan, could the Rapid Deployment force provide an effective military counterforce?

ANSWER: Yes. Given the forces assigned and our ability to project that force, I believe the Soviets will perceive that there is a very high and unacceptable risk. Programs to improve the RDJTF forces will enhance our ability to project the force and will reduce the risk to the U.S. while increasing the risk to the Soviets. My primary mission is that of deterrence; should deterrence fail, we must be prepared to fight.

RDJTF/Readiness

QUESTION: Would use of the RDF under such circumstances be primarily a step taken in support of diplomatic initiatives?

ANSWER: The RDF is intended to deter aggression in Southwest Asia and fight, if necessary, to protect US vital interests in the region. [Deleted.] [Deleted.] It should be noted that the peacetime RDF also provides support for diplomatic initiatives in the region.

MILITARY SUPPORT FROM EUROPEAN ALLIES

QUESTION: To what extent can we rely on our European Allies for military support in Southwest Asia?

ANSWER: Currently, we can rely on our European Allies to provide critical en route access (landing and overflight rights) to support the deployment of US forces. Additionally, several NATO nations maintain a peacetime naval presence in the Southwest Asia region.

QUESTION: Isn't Soviet adventurism in Southwest Asia most likely to be supported by armor and mechanized infantry? Is the RDF equipped to meet a threat of this nature?

ANSWER: [Deleted.] Elements of the RDJTF have been specifically allocated for planning because of inherent anti-armor capabilities and battlefield mobility. These elements include the 101st Airborne Division (Air Assault), the 24th Infantry Division (Mechanized), and the 6th Cavalry Brigade (Air Combat); Air Force and Marine units assigned for planning to the RDJTF will also have substantial anti-tank capability.

QUESTION: Southwest Asia has, in effect, emerged as a third major potential theater of war, in addition to Europe and the Pacific. Have our force levels increased as a result of this development?

ANSWER: There have been no increases to force levels for potential conflicts in Europe, the Pacific or Southwest Asia. Forces assigned to the Rapid Deployment Joint Task Force can be deployed to other than Southwest Asia contingencies.

RDJTF/Readiness

QUESTION: Assuming that assets would be "borrowed" from other theaters, what is an acceptable level of exposure in these other areas?

ANSWER: [Deleted.]

QUESTION: [Deleted.] Is this a realistic assumption in light of the current attitude toward the U.S.?

ANSWER: [Deleted.]

SUPPORT FOR ALLIED DEFENSES

QUESTION: Assuming conflict in both the NATO and Southwest Asia regions, are there sufficient personnel and equipment to support Allied defenses?

ANSWER: Assuming that conflict in Southwest Asia required the commitment of the entire RDJTF, extreme demand would be placed on strategic lift (primarily airlift), tactical aircraft, and combat support and combat service support units. Similarly, the unavailability of RDJTF units to reinforce NATO would increase the risk that Allied forces would not be able to stop a Warsaw Pact attack with conventional means.

QUESTION: Given the limited sealift and airlift assets, how would the JCS determine priorities for deploying to both NATO and SWA regions?

ANSWER: The JCS will determine priorities for sealift, airlift and the subsequent employment of forces based upon the situation at the time. The JCS, in consultation with the NCA, will determine which theater will receive priority and to what degree. Since we do not have the capability to successfully engage Soviet forces on all fronts simultaneously, priorities for sequential operations or limited deployments in some areas versus significant deployment in others will be established to ensure military power is applied effectively.

QUESTION: Considering the extreme difficulty we would have both reinforcing central Europe and deploying in Southwest Asia at the same time, isn't it reasonable to expect the Soviets to initiate military pressure in Europe in conjunction with a new move in Southwest Asia?

ANSWER: It is reasonable to expect the Soviets to initiate military pressure in many parts of the world along with moves in SWA. However, there are reasons to believe that it may not be in the Soviets interest to create pressures elsewhere. For instance, they did not initiate pressure in Europe when they occupied Afghanistan. It should be pointed out that the Soviets also have limits on their forces and capabilities, particularly in terms of transportation and sustainment. In the event of a deployment to Southwest Asia, however, we have urged our allies to compensate for diversions of US forces committed to NATO [deleted].

RDF ASSETS FROM NATO

QUESTION: If need be, could assets for the RDF be derived from NATO resources?

ANSWER: [Deleted.]

NATO UNITS INVOLVED IN PLANNING SCENARIOS

QUESTION: Similarly, are any NATO units, either US or Allied forces, involved in any of your planning scenarios?

ANSWER: [Deleted.]

QUESTION: Assuming a one week scenario for deployment to the Persian Gulf, what percentage of your personnel and material requirement is handled by sealift, airlift and prepositioning?

ANSWER: [Deleted.] Pre-positioning of equipment would enhance our readiness posture and permit our deterrent combat forces to be moved by airlift in the initial stages. [Deleted.]

QUESTION: Is there a breakpoint in the deployment schedules to transition from light infantry to heavy infantry?

ANSWER: Yes, at about the flow point of about [deleted] after hostilities when the transition is made from strategic airlift to strategic sealift, depending upon the availability of the Suez Canal.

QUESTION: The Navy's programs for prepositioning ships in the Indian Ocean are heavily geared toward providing the Marines with equipment and secondly, to resupply the carrier group if need be. Is there any prepositioning support for Army units contemplated?

ANSWER: Yes. The NTPF ships provide support for all four Services. [Deleted.]

QUESTION: In many respects the CX or C-17 could be characterized as the RDF cargo aircraft. Until a follow-on aircraft is available do you have any preference between the C-5B and commercial wide bodied transport?

ANSWER: Yes, I would prefer the C-5B for the following reasons: superior outsized cargo capability; compatible with current Air Force material handling equipment (MHE); inflight refueling capability; able to operate from austere airfields because of lower ground pressure generated from its numerous wheels; spare parts, tools, publications, and training programs available; experienced crews are on active duty; and exploitation of known maximum life expectency established following the wing modification. Procurement of the 747 would create many problems. [Deleted.] New training programs for crews and maintenance personnel would have to be established. Spare parts, tools, publications, and cargo handling equipment would generate further costs. However, do not construe my remarks as to be disparaging of the 747. It is a fine aircraft for the purpose for which it was designed. I have planning access to them through the CRAF and they make a significant contribution to my mobility. In summary, I need the unique capabilities of the C-5Bs for a balanced airlift capability.

QUESTION: Again, assuming a one week deployment scenario, what percentage of flights or cargo would be considered outsized?
ANSWER: Approximately (d) percent.

QUESTION: How would you characterize the extent of your flexibility to plan for certain equipment by airlift or sealift?
ANSWER: That is scenario dependent; we are highly flexible. Detailed plans exist at component level to take best advantage of inherent opportunities offered by each mode of transportation, balanced against the availability of assets and relative closure times. However, with a requirement for a short notice deployment and quick reaction that might arise from a "no warning" scenario we cannot close sealift into SWA from CONUS in sufficient time. Therefore, the requirements for airlift and prepositioning are as compelling as optimal use of sealift assets.

SEALIFT

QUESTION: With regard to sealift, how many dry cargo and tanker vessels could be made immediately available by the Military Sealift Command? Is this adequate?
ANSWER: The MSC has 22 cargo and 22 tankers in its nucleus and charter fleets. Immediate availability is dependent upon employment and location of the vessel at the time of the contingency. Ten ships (cargo) could be available within 10 days. MSC is not designed to provide quick response alone. Together with the TAKX, SL-7s, NTPF, RRF, and U. S. flag fleet they make a viable sealift program.

QUESTION: The Sealift Readiness Program is the sealift counterpart of the CRAF program. How many ships are in the Sealift Readiness Program? Are they the type of vessels useful to the RDF mission?
ANSWER: There are 185 ships in the SRP consisting of both dry cargo and tankers. They are useful to the RDF mission although not all are self-sustaining and would require some offload assistance at the terminus. Non-self-sustaining ships in the SRP number 54. The current force is comprised of 161 dry cargo and 24 tankers.

QUESTION: Now that we have purchased eight SL-7 containerships, Navy plans to complete the conversion of these vessels over the next two (2) years. Funding was provided last year for the so-called "mini-modification" of these ships as an interim measure. If funding for the full conversion of these ships were denied, could the RDF still meet its mission objectives with the "mini-mods" only?
ANSWER: No. This is an interim program , and the "mini-modification" does not improve the RDJTF deployment capability. A viable roll-on/roll-off capability for all eight (8) vessels is a must for the RDJTF to meet mid-term mobility objectives in Defense Guidance FY 84-88.

QUESTION: The Navy budget request includes funding for the conversion and charter of T-AKX Maritime Prepositioning Ships. The objective is to convert these vessels to a roll-on-roll-off configuration to accommodate three (3) Marine Amphibious Brigades. Does the RDF have any preference as to how many ships should be in the program?

ANSWER: No. My concern is that the number of ships in the program are of sufficient quantity, size, and capability to fully support the three (3) Marine Amphibious Brigades (MAB), and that they be delivered as soon as possible; i.e., one in FY 84, one in FY 85, and one in FY 87.

LAV APPLICABILITY TO THE RDF

QUESTION: The Army and Marine Corps are examining the viability of fielding lightweight tracked and wheeled vehicles. Isn't the pay off of the program directly applicable to the RDF?

ANSWER: From the Marine Corps standpoint, the LAV Program will provide a family of mission role LAVs which will be integrated into a battalion sized organization. This battalion will be firepower intensive and provide a highly mobile unit capable of being airlifted by all types of transport aircraft. With these capabilities inherent to the LAV Program, the benefits associated with them will enhance the Marine Corps' response to any RDF missions.

Light Armored Vehicle Program

QUESTION: If the RDF were to utilize light armored vehicles, for example, the 14-ton mini-tank in lieu of the 60-ton tank, the airlift and sealift requirements would be dramatically altered. Is that a fair assessment?

ANSWER: No. Although a C-5 could carry more of the lighter vehicles, [deleted]. With respect to sealift, although weight difference is significant, size difference is minimal; therefore, sealift requirements would not be dramatically altered.

QUESTION: Similarly, if the RDF were to fully endorse the light armored vehicle program the demand for heavy armor would not be as significant until later in the deployment schedule. Consequently, the requirement for airlift of outsize cargo in the early phase of deployment would diminish. What's your response?

ANSWER: The question implies the deployment profile of the RDJTF can not adjust to changes in the threat. This is incorrect. Because airlift is not an efficient mover of cargo with high cube to weight ratios, most of the heavy lift movement requirements are delivered by sealift under normal deployment scenarios. With the introduction of the predominately oversize vehicles of the new high technology division, a shift in the balance of cargo --bulk, oversize and outsize --will occur. The shift will probably reflect a greater percentage of oversize relative to outsize and bulk cargo during the first week of deployment. However, the degree of increase is scenario dependent. For example, there are some scenarios which may require me to lead with heavy units which demand a higher proportion of outsize cargo airlift. Consequently, while light armored vehicles will probably increase the proportion of oversize cargo under normal deployment scenarios, I must have the outsize capability which permits me to lead with heavy units.

LAV PROGRAM

QUESTION: What is the current request for the light armored vehicle program?

ANSWER: The Marine Corps' Acquisition Plan for the LAV Program as outlined in the 1983 Budget request is as follows:

	83	84	85	86	87
$M	89.7	84.3	85.1	123.5	50.0
QTY	134	141	116	229	64

An additional $41.1 million is provided in the FY82 Budget for 60 vehicles.

LAV FIELDING

QUESTION: If the RDF were to shift to this light armored concept, how soon could we expect to see fielded units?

ANSWER: In accordance with the Marine Corps' LAV acquisition plan, the first Marine Corps LAV unit, a company size unit, will be fielded in November 1983. It is anticipated that the first Light Armored Assault Battalion will be fielded by the end of 1984.

QUESTION: One of the strongest wartime missions of USREDCOM is to coordinate the mobilization and transportation of assets to the area of conflict. The Joint Deployment Agency arm of USREDCOM is principally responsible for this mission. Has there been any thought given to making this role a peacetime responsibility for JCS exercises?

ANSWER: Yes. The Joint Deployment Agency is not an arm of USREDCOM but is a JCS agency to plan, coordinate and monitor movements of mobilized U.S. Armed Forces, both active and reserve, within the United States and to overseas areas as reinforcements for U.S. unified and specified commands. During a crisis situation, the JDA coordinates deployment activities to ensure that combat forces and materiel are provided, when needed, to a commander conducting operations anywhere in the world. This role is practiced in peacetime for all JCS deployment-related exercises.

QUESTION: During the recent GALLANT EAGLE 82 RDF Exercise, USREDCOM played a modest role in planning and coordination. We understand that the Joint Deployment Agency was not involved in the deployment of troops and material. What will happen when the RDF becomes a separate command?

ANSWER: The RDF Exercise GALLANT EAGLE 82 was an employment exercise. Exercising the deployment of forces was not an objective. Once the RDJTF becomes a unified command, they will plan and coordinate their exercises as does every other unified command. USREDCOM will participate as a supporting command as it presently does for other supported commanders. The JDA will interface with the RDJTF, supporting commands and the TOAs to provide peacetime planning and to exercise the wartime Deployment Management System, when this is an objective of an exercise.

QUESTION: General Brickel, OSD is considering a proposal to merge the transportation commands of each of the Services. Would it be a viable option to make the JDA the central manager of the transportation commands?

ANSWER: I see no need for a super transportation operating agency in the Department of Defense. The JDA is a planning staff dedicated to improving the planning of wartime deployments and coordinating, monitoring and reporting the status of deployment during wartime. It is not organized or manned to contract for and manage the trucks, buses, trains, ships, and aircraft assets required to move forces and materiel in wartime or for the peacetime movement of forces and materiel, including household effects. The transportation operating agencies are organized and manned to direct and manage these assets, not the JDA.

Mission Capable Rates

QUESTION: Secretary Groover, you've emphasized in your statement that the Department is laboring to improve the mission capable rate of weapon systems in each of the military services. Apparently DOD has developed different standards for each Service. Why?

For example, there is a different standard of mission capable rates for aircraft, by service -- Air Force and Army at 75 percent and Navy at 70 percent --and each Service has experienced different degrees of success. Is there a common thread that runs through all aircraft maintenance programs which might explain the disparity?

ANSWER: DoD has not developed different readiness standards for each Service. In recognition of the problem alluded to by your question, DoD has issued an instruction (DODI 7730.25) titled "Materiel Condition Reporting for Mission-Essential Systems" that provides standards on how to set readiness goals. This instruction requires that readiness goals reflect the inherent reliability of the weapon system and its periodic or scheduled maintenance. These goals are to assume full funding of spares procurement and component repair of spare parts and is to further assume that the supply and distribition system operates at peak efficiency. Thus the differences in readiness goals are not unreasonable since the inherent reliability and periodic maintenance are different for different systems. Additionally, changes in operating environment and method of support (i.e., land vs sea based aircraft) influences the theoretical maximum readiness that can be achieved. Thus it may well be that system A in the Navy can only achieve a maximum mission capable rate of 70 percent while operating at sea whereas system B in the Air Force can achieve 75 percent because of possibly better inherent reliability and because it is land based. In this situation, we should not lower the Air Force goal to 70 percent, nor would we expect or demand system A to reach 75 percent. Thus we maintain separate goals.

Reliability Centered Maintenance

QUESTION: Your statement mentions in passing that you've implemented a reliability-centered maintenance concept to all services. Can you describe this concept in a little more detail?

ANSWER: Increased performance requirements for new military weapon systems have led to increasingly complex equipment with corresponding increase in maintenance costs. For years maintenance was a craft learned through experience and rarely examined analytically. One of the underlying assumptions of maintenance theory in the past has been that there is a fundamental cause-and-effect relationship between scheduled maintenance and operating reliability. This was based on the intuitive belief that because mechanical parts wear out, the reliability of any equipment is directly related to operating age. The problem was in determining what age limit was necessary to assure reliable operation. In any event, the relationship between scheduled maintenance and reliability remained a major question.

Later studies based on actuarial analysis of failure data suggested that the traditional policies of repair or replace based on age or operating hours were ineffective in controlling failure rates. Contrary to expectations, the likelihood of failure did not always increase with increasing operating age. Consequently, maintenance policy based exclusively on some maximum operating age would, no matter what the age limit, have little or no effect on the failure rate. The Federal Aviation Administration, responsible for regulating airline maintenance practices, and anxious to control the failure rate of certain types of engines by any feasible changes in scheduled overhaul policy, formed a task group in 1960 to investigate the capabilities of scheduled maintenance. A rudimentary decision-diagram technique was subsequently developed in 1965, refined over the next few years, and finally published in 1970 under the title "MSG-2: Airline Manufacturer Maintenance Program Planning Document," which was used to develop the scheduled maintenance programs for the Lockheed 1011 and the Douglas DC-10. The objective of the techniques outlined by MSG-2, subsequently known in the DoD as Reliability-Centered Maintenance (RCM),was to develop a scheduled-maintenance program that assured the maximum safety and reliability of which the equipment was capable and would meet this requirement at the lowest cost. Application of MSG-2 by the commercial airlines was successful with savings in resources, including labor and materials costs, and reduced spare parts inventory. OSD, recognizing the potential savings of MSG-2 to military hardware, directed the Military Services to apply the MSG-2 techniques to all military mission-essential weapon systems and equipment. The Services have applied the MSG-2 or RCM concept to aircraft, ships, and combat vehicles.

Mission Capable Rates

QUESTION: The projected Air Force aircraft mission capable rate is 10 percent below the goal. Why?

ANSWER: This answer assumes that the question refers to Volume II: Materiel Readiness Report, of the DoD Force Readiness Report, February 1982 (SECRET). These goals are estimates of the maximum that is achievable with the design characteristics (especially reliability and maintainability) of the equipment, with planned peacetime usage, and with full funding and optimal operation of the peacetime manpower and logistics support systems under existing DoD policy. Since no system operates at its theoretical maximum the differential between the actual MC rate and the goal represents the system operating in a normal fashion given the existing peacetime constraints.

QUESTION: Although the Navy's aircraft mission capable rate goal is 70 percent, the actual experience has been 59 percent. Moreover, a spot check of the major systems reveals some actuals well below the weighted average. Please provide for the record a detailed breakout of FY 1981 mission capable rate actuals by aircraft for the Navy and Air Force.

ANSWER: A detailed breakout of the 1981 mission capable rate (MC) actuals by aircraft for the Navy and Air Force are contained in Volume II of the DoD Force Readiness Report that was submitted to the Congress on February 15, 1982. This document also contains actual MC rates for 1980 and projected MC rates for 1982-1985.

Army's "Fix-Forward" Concept

QUESTION: Mr. Secretary, your statement highlights the importance of retaining experienced technicians in the services. In the Army the technician shortfall is bound to be aggravated by the shift in maintenance philosophy from the depot to the field units. Why are we pursuing the "fix-forward" concept at this time?

ANSWER: Mr. Chairman, first of all, let me clear up a misconception. Army has replaced the term "fix forward" with "Forward Support Maintenance." This was done to eliminate confusion on the meaning of the word "fix" which carries a connotation of all maintenance being performed forward. The thrust of the Forward Support Maintenance concept is maintenance oriented toward quick turn around of equipment in order to maximize combat time by minimizing repair and evacuation. This is accomplished through Maintenance Support Teams established at Organizational, Direct Support and General Support levels that can operate in forward areas. The degree of maintenance required, time, skill level and tools and test equipment are the criteria used in determining which maintenance level will accomplish the task. Battle Damage Assessment teams in concert with on-site maintenance personnel will make this determination. If the criteria cannot be met by one of the Maintenance Support Teams, the item will be evacuated to the appropriate maintenance level.

The Forward Support Maintenance concept is not expected to impact on depot resources. This concept is an orientation of tactical maintenance organizations toward forward area maintenance. There is no corresponding forward migration of maintenance resources to a specific location on the battlefield or to a lower level of maintenance support. Established maintenance tasks allocated to the maintenance categories of Organizational, Direct Support, General Support and Depot are unchanged. Forward Support Maintenance uses existing skill levels, organized into Maintenance Support Teams, to move about the battle area and accomplish maintenance as far forward as practical or the item is evacuated to a level which can perform the task.

Aircraft Spare Parts Provisioning

QUESTION: Over the years a syndrome has crept into the Air Force and Navy aircraft maintenance programs of cannibalizing parts from "down" aircraft due to a lack of spare parts. After a time, the aircraft requires a multitude of maintenance actions and effectively becomes a "hanger queen." With the surge in funding for spare parts, can we expect to see a decline in cannibalization?

Do you have a system to measure the extent to which aircraft have been cannibalized?

If such an evaluation tool exists, is there some correlation between specific spare parts and failure rates in excess of plan?

ANSWER: As your question correctly implies, cannibalization results when spare parts are not available; and certainly, the cannibalizations will decrease as the increases in spares procurement in prior years materializes. Since the procurement leadtimes for spares is about two years, spares procurement increases in FY 82-83 should begin to start showing a decrease in cannibalizations in 1984-85. As long as cannibalizations continue to be the last resort as a source of repair parts, we have determined that consolidation of cannibalizations in a single aircraft is a prudent management action. This has the benefits of first making other aircraft available for operation and secondly, reducing the intensity of the management to that required to monitor only one aircraft.

The Services record cannibalization rates per 100 flying hours, the components involved and the manhours expended. The numbers of cannibalizations per 100 flying hours by aircraft type for FY 80-81 are also reported in Volume II of the DoD Force Readiness Report.

The last part of your question about correlation between specific spare parts and failure rates suggest that there is a consistent set of spare parts that are continually in short supply. This is not the case because spares requirements in excess of those projected occur at random and follow no fixed pattern.

HAWK Missile System

QUESTION: Mr. Secretary, your statement points out that all Army guided missile systems are currently above the goals for mission capable rates--except for the HAWK system. Wasn't the Improved HAWK program designed to correct problems with this system?

ANSWER: Yes, improvements to the HAWK missile were in areas of: air frame, guidance electronics (solid state), missile motor (solid propellant), and warhead. These improvements substantially increased the capability of the Electronic Counter Counter Measures (ECCM), missile reliability, and Probability of Single Shot Kill (PSSK).

These improvements eliminated the need for the missile to be turned on or requirement for maintenance, except when pulled off launcher for service check. Essentially the missile is maintenance free.

Ground support components which make up a HAWK missile system include: radars (three different types), fire control vans, launchers, HAWK missile loader/transporter vehicles, generators, and communications equipment.

The reliability of the missile is extremely high; however, because of problems associated with ground support equipment the mission capable (MC) rates, for the missile system, are reported lower than that demonstrated by just the missile itself.

We currently have an on-going three phase product improvement program (PIP) to improve both performance and reliability of the missile system. We are realizing incremental benefits from this three phase PIP and will continue to realize these benefits through the FY 85-87 time period.

Operational Support - M-1 and IFV Systems

QUESTION: CBO released an anlysis last month which concluded that the cost to support a tank battalion could increase by as much as 55 percent with the introduction of the M-1 tank. Similarly, operational costs for a mechanized battalion are expected to increase 20 percent with the fielding of the Fighting Vehicle System. Have these results been factored into the outyear budget estimates?

ANSWER: The CBO analysis is based on the Army's Modernization Resource Information Submission (MRIS) estimate of requirements for the M-1 tank and Fighting Vehicle Systems. The same MRIS data were used in constructing the Army's outyear estimates for tank battalions and mechanized battalions, and these estimates are included in the current five year defense program. Since there are no comparable MRIS data for systems currently in the field (such as M60 and M113), it is difficult to say how much of an increase the MRIS data represent. Comparing MRIS estimates to independent life cycle cost estimates for the M60 and M113 (as the CBO analysis does) is as likely to point out differences in cost estimating methodology as real differences in support costs. In light of the increased unit cost and fuel consumption of the new systems, an increase in some elements of support cost is clearly expected. The Army has programmed resources to fully fund its best estimate of the projected operating and support costs for the M-1 and FVS budget estimates.

QUESTION: Mr. Secretary, do you expect that the M-1 tank will demand a greater level of support than the M-60A3 in order to maintain an acceptable mission capable rate?

ANSWER: The level of support being provided for the M-1 tank is higher than M60A3 in some areas (spares, for example, due to M-1's higher unit cost), and about the same in other areas (battalion manpower, component repair capacity, etc.). With this level of support, M-1 mission capable rates to date have been more than acceptable: 93-96 percent for battalions in Europe undergoing transition training: and 82 percent at Ft. Hood, with older M-1 tanks being subjected to very high utilization (higher than planned combat intensity).

Ship Maintenance

QUESTION: You also mentioned that the surface ship material condition is expected to improve during 1982-1985. Is this due to the phased maintenance concept now being introduced in the fleet?

ANSWER: The primary driver in improved surface ship material conditions has been the increase in resources provided to fund ship maintenance workload requirements. On less complex ships the phased maintenance concept has contributed to enhanced material condition.

Ship Maintenance Backlogs

QUESTION: We've been led to believe that the plan to eliminate the ship maintenance backlog was an OSD initiative. Is this true? If so, what factors led you to believe that the increase in the number of complex overhauls is attainable?

ANSWER: For at least the last four years, OSD programming guidance has emphasized eliminating ship overhaul backlogs in order to maximize ships availability. This initiative has received favorable support in the Congress and the Navy.

STOCK FUNDS

QUESTION: Each military service stock fund budget requests financing of secondary items in anticipation of increasing demand due to force structure expansion. The revenue generated from sales should cover the replacement cost of inventory. Why is this request needed?

ANSWER: DoD stock funds do operate under the concept that revenue from sales covers the replacement cost of inventory. The Military Services' requests for additional stock fund budget authority, however, are required to finance the establishment of additional levels of inventory over and above the replacement inventory financed through customer sales. This new inventory is required to support the initial parts provisioning of new weapons which are inherently more expensive than the older systems being replaced; to support modernization and modification of older weapons to more capable configurations; and to fund higher levels of inventory on a selective basis to increase readiness of fielded weapons.

QUESTION: Last year GAO concluded that the stock funds were losing money because foreign military sales customers were not charged inventory replacement cost. Is this problem behind us?

ANSWER: DoD did not agree with the GAO contention that stock funds were losing money as a result of failure to charge FMS customers replacement cost. The DoD response to the GAO stated that the Report's conclusion was incorrect and unsupported by fact. DoD nonconcurred in the specific recommendations of GAO regarding estimation of replacement costs and cited the fact that GAO's conclusion was based on "worst case" examples rather than typical actual transactions.

In separate action, not connected with the GAO Report, DoD has promulgated a policy modification requiring that stock fund items be priced to recover full replacement cost from FMS customers. This modification requires establishment of separate price surcharges for those items sold under Cooperative Logistics Supply Support arrangements and those items not sold under such arrangements. This action should effectively minimize any residual deficiencies which may have existed in pricing FMS items in DoD stock funds.

QUESTION: Could the erosion of the stock fund cash position be partially attributed to failure to charge DoD customers the replacement cost?

ANSWER: For several years DoD has operated under a stock fund pricing concept which provided a one-time annual update of stock fund prices to the customer. This "stabilized" price approach has the advantage of fixing costs for customers despite inflationary impacts. The disadvantage of the system is that stock fund revenues may lag behind expenditures during periods when actual inflation exceeds the established inflation rate. Further, DoD has not been able to establish a fully effective method of pricing items for which no procurement actions may have occurred for several years. When these items are subsequently procured, the compounding effect of several years inflation may cause some underpricing

DoD is well aware of the above problems and is exploring potential solutions. The current cash position, however, is only partially caused by inflationary impacts. Force expansion, modernization and readiness initiatives requiring a higher level of inventory investment are also major contributors to the need for additional cash.

QUESTION: Is there any reason to believe that the stock fund requests may be understated?

ANSWER: The current FY 1983 requests for new stock fund peacetime budget were developed based on DoD's best estimate of the stock fund cash position at the end of FY 1983 compared to the established end of year cash target. The cash target represents the funds necessary to operate the stock fund to meet inventory and sales objectives. To the extent actual cash positions are less than the target, stock fund requests will be understated. However, at present DoD has no better estimates of the need for additional cash. All possible options to assure adequate available cash within budgeted resources are being examined. Historically, the DoD stock fund cash position has been inadequate to effectively cover the impacts of force build-up, equipment modification, modernization and readiness initiatives. DoD has been able to resolve the chronic cash deficiency by reprioritization of funding and deferral of needed, but less important, requirements. Beginning in FY 1983 DoD is proposing direct funding of peacetime stock fund cash through new appropriations. The FY 1983 funding request was developed to reconstitute the overall DoD stock fund cash position to assure availability of working capital required to effectively operate the fund. The current FY83 cash request is, however, considered to be the minimum that will be required to sustain DoD stock fund operations. Beginning in FY 1984 DoD will request new budget authority on an annual basis to support needed inventory levels of stock fund items to support force modernization and readiness initiatives.

QUESTION: How many years and what level of funding is required to achieve the equilibrium of revenues to costs?

ANSWER: DoD is currently planning requests for new stock fund budget authority during each of the next five planning fiscal periods (FY 1984-88). These requests are required because there are increasing forces and projected readiness improvements during each of the planning years. To sustain these projected increases DoD must program funding of stock fund support materiel at a level corresponding to force build-up. At the point in time when Defense resources reach the level equal to approved Defense requirements, no further stock fund cash increases will be required to maintain the revenue/cost equilibrium. However, this balance is not projected to occur within the Defense five year planning horizon.

QUESTION: Please provide for the record a breakout of the current cash position of the stock funds; an FY 1982 projection of revenues by major system; and an FY 1982 projection of costs by major system. Include an estimate of the cash improvement resulting from charging actual replacement cost to FMS customers.

ANSWER: The following chart portrays the Military Departments and Defense Logistics Agency's actual peacetime stock fund cash position as of 30 April 1982 compared to the FY 1983 President's Budget submission. These figures indicate a decrease of $269 million in the previously anticipated cash position.

$ MILLIONS

SERVICE	PREVIOUSLY ESTIMATED END APRIL 1982	(President's) (Budget)	30 APRIL ACTUAL
Army	237.5		171.6
Navy	169.9		38.5
AF	252.0		181.9
DLA	621.2		619.5
TOTAL	1280.6		1011.5

DoD stock fund revenues and costs are not accummulated nor projected by major system therefore, the data requested cannot be provided in that manner. Cash balances are accounted for by Service/Division within the DoD stock fund. As it is DoD's position that there is no significant underpricing of stock fund items sold to FMS customers as contended by GAO, it is estimated that future cash revenues of sales to FMS will not significantly impact the DoD cash balance.

QUESTIONS SUBMITTED BY SENATOR RUDMAN

QUESTION: According to the much-maligned Carter Doctrine, the United States retains among its options the use of force in order to ensure that Persian Gulf oil assets are not seized by hostile powers. In the absence of the necessary logistical infrastructure to make quick regional intervention possible, as well as the political difficulties to which the Doctrine is hostage, how credible is it as a declaration of U.S. intent to repel aggression?

ANSWER: Programmed enhancements to airlift and sealift programs, as well as negotiations under way to secure access/basing agreements in the SWA regions are significant improvements. Additionally, [deleted]. These improvements, along with others in our naval, air and marine forces are an important facet of our overall response to aggression in the area. Our intent to repel aggression is fortified significantly by our commitment to improve our ability to transport rapidly our forces to the area and to sustain them after arrival. The political difficulties of the region will not go away. We must ensure that our military, political and economic programs are developed in consonance with one another to ensure that our vital interests are protected in the most effective manner possible.

RDJTF/Readiness

QUESTION: Even assuming that all material requirements associated with a Rapid Deployment Force can be satisfied, can such an expeditionary force of the size contemplated really be effective in protecting our regional interests against concerted Soviet/client state military action?

ANSWER: [Deleted] we have the capability to deploy a significant degree of combat power into the region to demonstrate our resolve and to deter the Soviets from further action. Should they continue their attack we can meet them with sufficient force to make them seriously reconsider their decision. This force capability carries with it the threat of further escalation which in the end is the ultimate deterrent. In a Soviet attack scenario, we have a credible capability to deter Soviet ambitions toward the Arabian Gulf and to act as a stabilizing element in the Southwest Asia region.

QUESTION: The United States has signed a series of agreements with Kenya, Somalia and Oman detailing arrangements for leasing rights, base facilities and auxiliary logistical capabilities which would enhance our capacity to intervene rapidly in Middle East contingencies. Could you elaborate upon the substance of the agreements and what concrete actions are anticipated by way of pre-positioning equipment and/or personnel in those countries?

ANSWER: Pre-positioning [deleted] is planned for selected locations in Oman. [Deleted.]

Under the terms of our access agreement with Oman, US aircraft and vessels have access to Omani facilities [deleted]. Oman agrees in principle to US pre-positioning [deleted].

Kenya and Somalia have granted standard access and status of forces agreements for an initial ten year period; thereafter, termination is by a one year notification. Access is to air and naval facilities [deleted]. Advance notice of requirements and consultation on major deployments to the host country is required.

READINESS OVERVIEW, RAPID DEPLOYMENT FORCE

QUESTION: Because of shortfalls in air- and sealift capabilities, it seems rather obvious that whatever credence is attached to the concept of a Rapid Deployment Force ultimately depends upon available pre-positioned materiel and the acquiescence, under foreseeable circumstances, of host nations to our political objectives. In its FY 1983 budget request, the Navy is asking for the Roll On/Roll Off conversion of the final four TAKR-X ships which were purchased in FY 1981 and 1982. In conjunction with the deployment of SL-7 container ships, what capability, and where, will these ships confer upon our readiness to rapidly intervene in distant trouble spots?

ANSWER: The mission of the Fast Logistic Ship (SL-7) is to provide lift capacity for unit equipment (vehicles and rotary-wing aircraft) to support a three brigade Army division or other unit required by a supported CINC. The equipment will be loaded for fast point-to-point sealift from the continental U. S. in support of worldwide operations. Each ship will have the capability to simultaneously provide the capability, at a minimum, of transporting 185,000 sq. ft. of wheel and track vehicles and aircraft. In addition to the vehicles and helicopters, each ship will be capable of carrying containerized cargo within total cargo payload weight limitations. The SL-7 shall be configured to enhance capability to transport heavy combat units rapidly to any part of the world in response to any contingency. The SL-7 ships will be maintained in an advanced state of readiness ready to load and go in four days. With its high speed capability, the SL-7 provides a Sealift Surge Enhancement not available previously.

QUESTION: (a) One of the questions constantly raised about pre-positioned ships is their vulnerability to sabotage or terrorist attack, thus laying bare even the most shrewdly conceived tactical battle plans. Kindly comment on the precautions which would be taken and whether such fears are credible.

ANSWER: The current pre-positioned ships are located at Diego Garcia. [Deleted.]

Long term measures are being addressed by the regional/theater commanders. [Deleted.] The possibility of terrorism or sabotage exists; however, appropriate actions are being taken to counter those threats.

NORTHWEST ASIA READINESS

QUESTION: With the drawdown in naval assets from the Seventh Fleet in the Pacific to increase patrol and respond to contigencies in the Persian Gulf/Indian Ocean region, with what level of readiness could we react to a sudden crisis in Northeast Asia? How deficient are our naval assets in that area and what short term options are available to remedy (at least partially) this disadvantageous situation?

ANSWER: The U.S. Navy maintains approximately four carrier battle groups forward deployed on a continuous basis to meet requirements in the Mediterranean, the Indian Ocean and the Western Pacific. At least one of these battle groups is always in the Western Pacific where it could quickly respond to any crisis that might arise. If the situation warranted this battle group could be rapidly reinforced from the Indian Ocean or from the United States. The specific disposition of our forward deployed forces is the subject of constant review by the Navy, the JCS, and the National Command Authority. While the number of ships in the Western Pacific has been somewhat reduced because of our Indian Ocean commitment, the United States Navy maintains and will continue to maintain, an adequate peacetime presence in that theater. The solution which will ultimately provide increased presence and increased warfighting capability on a global scale lies in the increased force structure of the 600 ship Navy and its 15 carrier battle groups.

Questions Submitted by Senator Stennis

QUESTION: General Kingston, your statement mentions the transition from a separate joint task force to that of a unified command status effective 1 January 1983. What does this really mean in terms of your operation?

ANSWER: It means a sizeable increase in functional responsibilities and the assignment of a geographic area. It is my responsibility for that area that significantly alters the operational commitments for the headquarters. Additional operational activities include conducting Security Assistance, meeting increased intelligence requirements and planning for and executing disaster relief operations/non-combatant evacuation.

QUESTION: Will additional personnel and funds be required for your headquarters as a result of this change in status?

ANSWER: None other than the 967 personnel, and an increase in FY 83 funds of $2,474,000 over the FY 82 budget.

RDJTF/Readiness

QUESTION: How will your mission, which is to conduct planning for possible Southwest Asia contingencies, be affected by this change?

ANSWER: When the RDJTF becomes a Unified Command, the mission to plan, conduct joint training and exercises, and be prepared to deploy designated forces to the SWA region will remain the same.

QUESTION:

"What are the added responsibilities which the Joint Task Force will take on?"

ANSWER [Deleted.] In the near future, the Joint Chiefs of Staff will be revising the Unified Command Plan (UCP) to provide authority for the new command to commence operations. This UCP revision will provide recommendations to the national command authority (NCA) on the responsibilities to be assumed by the new command.

QUESTION: How will the new unified command differ from STRIKE Command, which operated at MacDill for many years?

ANSWER: USSTRICOM/USMEAFSA, which was the predecessor to the current USREDCOM, had a two-fold mission: (a) command of Army/Air Force CONUS-based units for training, joint exercises and readiness, and deployment of those units in support of other commanders when directed (generally speaking, this equates to the current mission of USREDCOM); (b) planning for contingency operations in a geographical area encompassing the Middle East and Africa South of the Sahara--MEAFSA. CINCMEAFSA was also responsible for those normal day-to-day functions required of a unified command, including security assistance and military cooperation with countries within the assigned area.

The new unified command for Southwest Asia will be responsible for much of the former MEASFA area, will exercise operational command over assigned forces, and develop plans and conduct training of those forces for their contingency missions in Southwest Asia or elsewhere as may be directed by the National Command Authorities. The SWA Command will also be responsible for those normal day-to-day operations required of a unified command, e.g., security assistance and politico-military cooperation between the United States and friendly nations within the assigned area.

QUESTION

"Will the new command be responsible for a specific geographical area?"

ANSWER

Yes. [Deleted.]

QUESTION

"After the RDF evolves into a separate unified command, will the need continue to exist to have another RDF - type capability for responding to contingencies in other parts of the world?"

ANSWER

Yes. One of the tasks assigned to United States Readiness Command (USREDCOM) is to provide forces and activate a separate Joint Task Force [deleted] to conduct contingency planning and operations, disaster relief, and noncombatant evacuation operations for areas not assigned to the other unified commands.

QUESTION: General Kingston, do you have the dollar amount which is contained in the Five-Year Defense Program (FYDP) that it will cost to develop U.S. capabilities to respond effectively to potential crises in remote areas throughout the world?

ANSWER: We do not budget by specific geographical areas. Therefore, the costs are not readily identifiable in the budget.

RDJTF/Readiness

QUESTION: Do you foresee assistance being provided by our allies to share the increasing burden associated with projecting forces to remote areas?

ANSWER: Our allies have expressed an interest in assisting our actions in Southwest Asia. [Deleted.]

QUESTION: Do you believe that the current US military force structure is adequate to take on additional commitment--and still meet our commitments of the past?

ANSWER: The JCS continue to advocate that [deleted]. As a result, the commitment of significant combat forces to any new theater creates additional risk should conflict occur in other theaters such as Europe. Increased emphasis on protection of vital U.S. interests in Southwest Asia has created an increased requirement for forces.

QUESTION: Do you believe that our presently planned rapid deployment forces can be effectively supported after they have been deployed to remote locations?

ANSWER: Support for currently planned forces to be deployed to Southwest Asia (SWA) is considered possible but difficult because shortages of selected resources still exist. Significant improvements in our sustaining capability have been made during the past two years. Further, sustainability enhancements programmed through FY 1987 have been structured to support the increases projected in the planned SWA force structure.

QUESTION: You mentioned the various exercises conducted by the Joint Task Force, specifically, Exercise BRIGHT STAR, which deployed over 6,500 American personnel in Southwest Asia. What did this exercise cost?

ANSWER: BRIGHT STAR 82 cost $70.8 M.

Question: Your statement says that the Joint Task Force has a "credible force projection and combat capability but not enough". What is your estimate of the additive cost of the improved airlift and sealift elements, command and control, and support efforts which are required to enhance your capability?

Answer: It is not possible to cite a single "additive cost" for improvements required to enhance RDJTF capabilities in the areas you mention, because we would need many of these improvements to enhance the capabilities of our forces in general, not just for any one theater. For example, the FY 83-87 Program contains about $14 billion for airlift enhancements (C-5B, KC-10, and CRAF Enhancement) and sealift enhancements (SL-7 and sealift discharge) which will increase our ability to project U.S. forces worldwide. Also, the Army is filling out support units with an emphasis on units having a primary Southwest Asia mission--but in most cases those same support forces would be needed in a NATO conflict or elsewhere. In our FY 1983-87 program, we have identified about $3.8 billion in SWA-specific programs (ones which probably would not be needed if we did not plan to carry out our SWA strategy) and about $8.3 billion in SWA-related programs (ones developed for SWA but which would support our combat operations in other theaters as well).

QUESTION: Do you appear to be getting support for those efforts in the FY 84 Program Objectives Memorandum (POM) cycle?

ANSWER: Yes. As I mentioned in my opening remarks, the FY 84-88 Service POMs are the first formal opportunity my staff has had to work with the Service staffs to identify RDJTF needs. Obviously, all RDF-related programs have not been funded. However, I will include those priority issues in my interface with the Services, JCS, and OSD during the FY 84-88 Program Review Process.

QUESTION: We are currently in the middle of considering a defense request to augment the airlift force by procuring additional C-5 aircraft. Other alternatives include purchasing of existing 747 aircraft and continued developing of the C-17 aircraft to be available somewhat later. I would be interested in your assessment of which alternative will respond more closely to your needs.

ANSWER: We need the airfift capability now; therefore, the C-5 should be provided as an interim measure with concurrent programming and development of the C-17 for the future. Currently, there is a significant delta between our strategic airlift delivery capability and the RDJTF airlift movement requirements. We expect this shortfall to increase to approximately 25 million-ton-miles per day (MTM/D) by 1986. Information to support the RDJTF airlift deficiency is included in the Congressionally Mandated Mobility Study (CMMS-1981) which was sent to the Congress on May 21, 1981. The capability of the C-17 offers the RDJTF a high mobility platform for use in an intra-theater role, i.e., it can be used in 70 per cent of the available airfields in SWA [deleted]. The 747 is extremely limited in this regard. Used in this role, the C-17 provides a major combat power mutlitiplier for executing national strategy in the SWA region. Consequently, more airlift is still needed. We are endorsing the C-17 aircraft to fill this void.

MARITIME PRE-POSITIONING SHIPS FLEET

QUESTION: The Comptroller General has recommended that substantial savings may be realized if the Navy were to acquire and convert existing Roll-on/Roll-off ships rather than building new ships for the Maritime Prepositioning Ships Fleet. Have you examined this alternative, including the life-cycle costs for each and plans for effectively supporting the ships when acquired?

ANSWER: The alternatives were examined early in the program. There is a sizeable number of special purpose ships involved. To meet ship requirements in the time required, a decision was made to pursue a convert and charter approach. The convert and charter approach is expected to be more cost effective than direct procurement when total costs are viewed over the term of the charter period. Definitive cost data will not be available until receipt of "Best and Final" cost proposals.

QUESTION: Would you comment on the major elements that are currently assigned to the Rapid Deployment Force?

ANSWER: I currently have operational control of Army forces consisting of XVIII Airborne Corps Headquarters (Headquarters, Rapid Deployment Army Forces) and two divisions--the 82d Airborne and the 101st Airborne (Air Assault). In addition, two other major army units, the 24th Infantry Division (Mechanized) and the 6th Cavalry Brigade (Air Combat), [deleted] [deleted] are available for contingency planning. Air Force Forces under my operational control include Rapid Deployment Air Force Forces Headquarters provided by the 9th Air Force and [deleted] tactical fighter squadrons with an appropriate mix of air defense and attack type aircraft. I have a Navy headquarters element, Headquarters Rapid Deployment Navy Forces, collocated with Pacific Fleet Headquarters in Hawaii. Forces have been earmarked from Navy and Marine assets for contingencies. A Marine Amphibious Force, [deleted] with its own air support and logistics capabilities has been designated by the Marine Corps. The Navy has made available for contingency planning three Carrier Battle Groups, one Surface Action Group with auxiliary ships and five Maritime Patrol Aircraft Squadrons. A Joint Unconventional Warfare Task Force Headquarters has been placed under my operational control. Unconventional warfare forces are also designated for planning. [Deleted] Additionally, the Strategic Air Command provides support with its Strategic Projection Force (SPF) consisting of bombers, aerial tankers and reconnaissance platforms.

QUESTION: Assuming a worst-case threat, what size Rapid Deployment Force would be necessary to execute Southwest Asia contingency plans?

ANSWER: This is a complex question. [Deleted.] This is the major reason why your support is needed for the FY 84-88 program.

QUESTION: I assume the size force required would be in excess of your current capability. Have you planned to expand the RDF to the size necessary to counter the worst-case scenario?

ANSWER: Yes. Additional forces are included in the FY 84-88 Program. I would appreciate your support of this Program.

QUESTION: Are a number of the forces assigned to the Rapid Deployment Force also committed to reinforcing NATO or Northeast Asia? Do you consider this a major problem?

ANSWER: Yes. [Deleted.] Yes, it is a major problem. [Deleted.]

QUESTION: Many of the ships located at Diego Garcia have been there since 1980. What has been our experience regarding the condition of the equipment and cargo prepositioned aboard these ships?

ANSWER: The result of four equipment maintenance cycles indicate that the preventive maintenance program exceeded our expectations (d). There has been virtually no degradation or deterioration of equipment or supplies during the extended periods of maritime storage.

Contractor Services for Maintenance

QUESTION: What are the cost implications of shifting work to contractor services under the Commercial Industrial Services (CIS) program when Navy Intermediate Maintenance Activity facilities are overloaded? How does this compare with the cost of premium or overtime compensation at the in-house facilities?

ANSWER: The shifting of work to contractor services under the CIS program is generally less expensive than other types of contractor maintenance. The CIS workload is typically small and repetitive and thus involves lower overhaul rates than with private ship overhaul contractors.

Navy intermediate maintenance activity personnel are military and therefore do not receive overtime or premium compensation. Public shipyard personnel perform more complex tasks typical of a depot maintenance activity. The CIS and public shipyard workloads are thus distinct and different from each other. The cost of CIS vice the cost of premium or overtime compensation at in-house facilities is not comparable.

Mission Capable Rates

QUESTION: Your statistics on mission capable rates indicate that the Air Force apparently achieves a relatively higher rate than the Navy -- even after the projected additive funding. Why is this?

ANSWER: The impact of increased funding in the readiness accounts does not occur instantly. Procurement leadtimes of about two years have a significant impact on being able to fix quickly our readiness problems. The more immediate impact can be seen from maintaining a zero backlog of depot maintenance for the repair of engines, airframes, and components. Navy MC rates remain relatively lower than Air Force rates because they start from a lower readiness state, and in some cases, the inherent reliability of the weapons system is less. Also we must recognize that our ability to project mission capable rates is in its infancy. Thus mission capable rate projections serve more as an indicator of the health of the logistics and support system. Even more important than the absolute numbers during any one time period, historical and projected trends in MC rates warn us of problems or satisfy us that the support systems are working as they should.

QUESTION: Would you comment on the difference between an aircraft being mission capable and fully mission capable?

ANSWER: The definitions of full mission capable rates and mission capable rates are as follows:

- Full Mission Capable (FMC): A system or equipment is considered FMC when it is safely useable and has all mission-essential sub-systems installed and operating as designated by a Military Service. For equipment with a single mission FMC is synonomous with MC, and therefore not used.
- Mission Capable (MC): A system or equipment is considered MC when it can perform at least one (and possibly, but not necessarily, all) of its assigned missions. MC is used as the sole rating indicator for single mission equipment.

A more detailed explanation of these and other materiel conditions indicators is found on pages B-7 and B-8 of Volume II of the DoD Force Readiness Report submitted to the Congress on February 15, 1982.

Improved Reliability and Maintainability

QUESTION: Only three aircraft types of the Air Force are projected to meet their mission capable rates by FY 1985. This is after substantial sums are programmed for improved reliability and maintainability. What more is required?

ANSWER: This answer assumes that the question refers to Volume II: Materiel Readiness Report of the DoD Force Readiness Report February 1982 (SECRET). The amounts the Air Force has been able to program for reliability and maintainability modifications represent only 76.0%, 41.1%, 26.7%, of the requirement in FY 81, 82, and 83, respectively. It must be recognized that the reliability/maintainability improvement area is a relatively small, yet significant factor in the capability equation. Many other factors also influence mission capable rates (MC). These include such factors as the FY 83 appropriations requests for enlistment/reenlistment bonuses, procurement of secondary items, and depot level end item and component repair. In essence, any factor which influences the people, facilities, and resources necessary to maintain aircraft must be funded to achieve higher MC goals.

SUBCOMMITTEE RECESS

[Whereupon, at 11:35 a.m., Wednesday, May 12, the subcommittee was recessed, to reconvene at 10 a.m., Thursday, May 13, 1982, in room 1318, Dirksen Senate Office Building.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1983

THURSDAY, JUNE 10, 1982

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The subcommittee met at 9:07 a.m., in room S-407, the Capitol, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Garn, Schmitt, Andrews, Kasten, and Rudman; also present, Senator Specter.

DEPARTMENT OF DEFENSE

DEPUTY SECRETARY OF DEFENSE

STATEMENT OF HON. FRANK C. CARLUCCI III, DEPUTY SECRETARY OF DEFENSE

ACCOMPANIED BY:

- **LT. GEN. JAMES E. DALTON, USAF, DIRECTOR JOINT STAFF, OFFICE OF THE JOINT CHIEFS OF STAFF**
- **MAJ. GEN. ROBERT C. TAYLOR, USAF, DEPUTY COMMANDER, RAPID DEPLOYMENT JOINT TASK FORCE**
- **GEORGE W. BADGER, DEPUTY PRINCIPAL DIRECTOR FOR EUROPEAN AND NATO POLICY, OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE FOR INTERNATIONAL SECURITY POLICY**

RAPID DEPLOYMENT JOINT TASK FORCE READINESS

COSTS, MISSION, AND CONCERNS ABOUT RDF

Senator STEVENS. Gentlemen, we are here to continue our inquiry into the various appropriation requests directed to the Rapid Deployment Force [RDF] concept. We were unable at our initial hearing with General Kingston to pin down the costs of the RDF.

We also did not receive satisfactory answers to our questions on the need for the creation of yet another military bureaucracy for this program and all related information. There was, in our opinion, confusion over the precise mission of the RDF and why that mission had been changed from its original global concept to one restricted to Southwest Asia.

We were particularly concerned about the concept that we were forming a new static theater to which the RDF would be attached.

With us today is Deputy Secretary of Defense, the Honorable Frank Carlucci. It is our hope that Secretary Carlucci will be able to address the concerns raised by the committee and to help us identify and analyze all the funding requests that pertain to it. We also hope to receive a more convincing justification on the need to expand the military bureaucracy associated with the RDF.

In order to promote a frank and open exchange, we are conducting this hearing in closed session, and only those with top secret clearances and a need to know should be present. I don't believe that we can or we will accept the concept that the change in this mission role will be classified. It has not been classified to date.

Secretary Carlucci, we welcome you back to the committee. We have your prepared statement and it will be printed in full in the record. I would like to have a declassified version of that statement to be printed in full in the record. Unfortunately, I think members of this subcommittee have a problem with the fact that there is a conference committee going on with the urgent supplemental and we are all members of that. It convenes at 9:30. There may be some members who have completed their section of the urgent supplemental who will be anxious to stay past 9:30, but I think Senator Garn and I have to be there at 9:30.

Proceed as you wish, Frank.

PURPOSE OF RDJTF

Mr. CARLUCCI. Thank you, Mr. Chairman.

In the interests of saving time I will be very brief since you do have my prepared statement.

As you are aware, the purpose of the Rapid Deployment Joint Task Force [RDJTF] is to provide the necessary assurances to our friends, particularly those in Southwest Asia, that we will be able to deter Soviet aggression. To deter such aggression, of course, we do not have to match the Soviets division for division, but we do have to have a credible force that will make them think about the possibility of engaging the United States in conflict and the resultant possibilities of escalation.

We do not believe we should carry the burden of this responsibility alone, and we are urging our allies to share this burden with us. As you are aware, in Southwest Asia, the British and French have a presence which is helpful.

As far as organization is concerned, the RDJTF was established in 1979, and President Reagan has made a decision that we should establish a unified command by January 1, 1983. The focus of the planning of this command will be on Southwest Asia, and it will have the normal responsibilities of any regional command.

Additional planning could be assigned to it in the future. The forces available to this command, both for operational control purposes and for planning purposes, are also ready and trained to be deployed to other parts of the world. This is an important distinction to make along the lines that you suggested, Mr. Chairman.

RDJTF COSTS

The costs for the RDJTF are embedded in our overall force structure, but we have broken those out to present to the committee. They are in two categories. First, for Southwest Asia specific programs, total $809 million in fiscal year 1983. Examples include water support equipment, regional military construction projects, pre-positioning materiel and Southwest Asia exercise; in other words, things that we could dispense with if we did not have this command.

Then there is a separate category which we might term Southwest Asia related programs, and we estimate the cost of those programs at $1.6 billion in fiscal year 1983. These are programs that support other missions as well as the Southwest Asia mission. Examples are communications equipment, rapid sealift, the SL-7's, the maritime pre-positioning ships, and munitions procurement.

That, Mr. Chairman, is a brief summary of my statement, and we are prepared to answer questions.

I have with me today Major General Taylor, who is Deputy Commander of the RDJTF, and Lieutenant General Dalton, who is Director of the Joint Staff in Washington.

[The prepared statement of Deputy Secretary of Defense Carlucci follows:]

PREPARED STATEMENT OF HON. FRANK C. CARLUCCI, III

DEPUTY SECRETARY OF DEFENSE

Mr. Chairman, it is a pleasure to appear before your subcommittee. The purpose of my statement is to discuss the Rapid Deployment Joint Task Force.

Policy. In the Middle East and Southwest Asia, our national security objectives include: (1) supporting friendly regional states against external aggression and subversion, and (2) preventing the spread of Soviet military influence and deterring Soviet aggression.

Radical fundamentalist movements, backed by foreign military aid and aggression, are a genuine threat to the integrity of the region. To counter these sorts of threats, we employ diplomatic and economic measures, coupled with our security assistance programs. In contingencies not involving the Soviet Union, we hope to rely on friendly regional states to provide military forces.

We must also ensure these states do not feel threatened by Soviet military pressure and do not modify their policies accordingly. Soviet control over access to Persian Gulf oil would change the political and economic shape of the world; it would significantly affect the world balance of power. To deter such a Soviet invasion, we have created a capability designed for Southwest Asia, but which could be used effectively in other areas of the world.

US Capabilities and Strategy. With our Five-Year Defense Program, the Reagan Administration has established a steady glide path through the mid-1980s to improve our rapid deployment capabilities. Our strategy for Southwest Asia is based on deterrence. Although Soviet force capabilities in the region are substantial, we need not match Soviet strength division-for-division in order to deter.

Our goal is to be able to employ US forces--with assistance from friends and allies--at several levels of conflict. First, upon warning in a crisis, we would move forces to the theater to show we are serious about protecting our interests. Secondly, we would engage the Soviets in combat, if necessary, in the region. The RDJTF compels the leaders in the Kremlin to view any Soviet large scale aggression in Southwest Asia in the context of an unpredictable war. The Soviets would recognize that the fighting could readily spread elsewhere, since both we and the Soviets are deployed globally. Consequently, our RDJTF enhances deterrence because its capabilities force the Soviets to couch any plans for aggression not in terms of a quick dash as in Afghanistan, but in terms of a conflict with incalcuable results and unacceptable risks. The Soviet Union is as concerned as we that a superpower confrontation there might evolve into a larger war with enormous uncertainties.

Allied Contributions. The United States cannot--and should not--carry a disproportionate share of defending the free world's interests in Southwest Asia. Our NATO Allies can and should do more to contribute to the security of both Europe and areas outside the NATO boundaries. Japan can and should do more as well. There are positive signs of our allies contributing more to the defense of common interests in Southwest Asia, but we believe much more can be accomplished.

Organization. For the past two and one-half years, our force improvements for Southwest Asia have been embodied in the Rapid

Deployment Joint Task Force. After the fall of the Shah of Iran, Secretary of Defense Harold Brown directed in October 1979 the establishment of a Joint Task Force. In March 1980, he established the Rapid Deployment Joint Task Force (RDJTF) Headquarters as a subordinate of US Readiness Command to conduct planning and training for Southwest Asia. In August of 1980, Mr. Brown directed the new headquarters to focus exclusively on Southwest Asian contingencies.

In April 1981, President Reagan accepted Secretary Weinberger's recommendation and decided that the RDJTF would evolve into a separate unified command for Southwest Asia. In October 1981, the RDJTF became a Joint Task Force reporting directly to the National Command Authority through the JCS, and was given the added responsibility of managing the transition to full command status. The new command will be formally created on January 1, 1983.

Today, the Headquarters, RDJTF, could deploy to Southwest Asia from MacDill Air Force Base in Florida. The forces available to the RDJTF for planning and training could also be deployed in support of unified commanders in other parts of the world, either as part of the RDJTF or as separate reinforcing units for the other CINCs, who have plans which anticipate the receipt of these forces. There is also the possibility that the National Command Authority could deploy the RDJTF as a separate Joint Task Force reporting to the Secretary of Defense through the JCS. We have focused the planning of the RDJTF on Southwest Asia because of the critical importance of the region. This current emphasis does not preclude us from assigning it additional planning tasks in the future. In addition, the existence of the RDJTF and the unified command for SWA do not preclude the continued need for US Readiness Command, which has its own distinct missions of deployment coordination, training, etc.

Resources, Programs, and Dollars. It is difficult to estimate precisely the budget costs attributable to the RDJTF because so many of its elements are embedded in our overall force structure. To the extent that we can identify programs, we have broken them down into two categories. First, there are those programs which are "SWA-specific;" that is, programs which could possibly be deleted if we were not involved in Southwest Asia. In FY83, we are requesting about $809 million for SWA-specific programs which include, for example, pre-positioning materiel, water support equipment, exercises, and regional military construction projects.

The second category we refer to as "SWA-related." These are programs which, although developed for Southwest Asia, are needed to support missions in other areas as well. Examples include communications equipment, fast sealift (SL-7s), maritime pre-positioning ships (MPS), and munitions procurement. In FY83, we are requesting about $1.6 billion for these programs, which will enhance our ability to fight in any theater.

Given our lack of presence in the region and its distance from the United States, Southwest Asia dramatizes our need for mobility forces--forces which are just as needed for NATO and Northeast Asia. Our long-term goal is to be able to meet the demands of a worldwide war, including concurrent reinforcement of Europe and Southwest Asia and support in other potential areas of conflict. As part of our strategy to achieve global flexibility, we are emphasizing airlift, sealift, and pre-positioning programs.

Our budget requests for airlift programs include funds to improve our utilization rates, procure additional strategic aircraft, and enhance the Civil Reserve Air Fleet. We have also requested funds for sealift programs, including $325 million in FY83 to convert the last four SL-7s to Roll-on/ Roll-off ships. This conversion will speed up the loading and unloading process, enabling us to take full advantage of the ships' fast transit times. A less-than-full conversion will slow down loading times and reduce cargo capacities. Other FY83 sealift programs include $230 million to continue operations of the Near-Term Pre-positioning Force already on station at Diego Garcia and $329 million to purchase equipment for the MPS program. These airlift/sealift programs meet multiple requirements.

In conclusion, I extend my sincere appreciation to this committee for its support during the past year and request your support for the FY 1983 budget. The programs requested enhance our capabilities and strengthen deterrence.

MAINTENANCE OF READINESS COMMAND

Senator STEVENS. Why is it necessary to maintain the Readiness Command along with the RDF?

Mr. CARLUCCI. The Readiness Command has distinctly separate functions, Mr. Chairman, and we would be glad to provide a sheet of paper which breaks down the functional responsibilities of the Readiness Command, the Joint Deployment Agency, and the Rapid Deployment Joint Task Force.

[The information follows:]

MAJOR JOINT ACTIVITIES LOCATED AT MACDILL AFB, FLORIDA

	UNITED STATES READINESS COMMAND	JOINT DEPLOYMENT AGENCY	RAPID DEPLOYMENT JOINT TASK FORCE
WHAT IS IT?	- One of five US unified commands. The others are for Europe, Atlantic, Pacific and Central/South America.	- A transportation management agency operating as an extension of the Joint Chiefs of Staff.	- A joint task force headquarters designed to command rapidly deployed joint forces.
WHAT DOES IT DO?	- Commands US-based general purpose forces. - Provides US-based combat forces to overseas combat commands. - Develops operational concepts, tactics, techniques and procedures for joint operations of US forces. - Trains US-based forces during joint exercises.	- Provides centralized management and coordination for worldwide deployment of US forces. - Provides deployment planning support for all unified commanders and joint task force commanders. - Plans, coordinates and monitors worldwide air, sea and land movement of US forces and materiel during military operations and exercises.	- Commands US forces rapidly deployed to Southwest Asia. - Develops contingency plans to protect US interests in designated area of interest. - Exercises designated forces in US and overseas. - Develops detailed operating procedures and techniques for a four Service force.

MAJOR JOINT ACTIVITIES LOCATED AT MACDILL AFB, FLORIDA

	UNITED STATES READINESS COMMAND	JOINT DEPLOYMENT AGENCY	RAPID DEPLOYMENT JOINT TASK FORCE
WHAT DOES IT DO?	- Provides planning and commands forces for land defense of the US and, with Canadian Forces Mobile Command, land defense of Canada. - Provides military forces to assist civil defense of US. - Conducts disaster relief worldwide.	- Develops a worldwide automated management information system for military deployments.	- Manages the transition of the RDJTF to a unified command for Southwest Asia.
WHAT DOES IT COMMAND?	- A 361 person headquarters. - 222,000 US-based Army and Air Force personnel forming the general reserve of US combat ready forces.	- Not a command. A 168 person agency headquarters plus 128 persons shared from US Readiness Command. - No forces.	- A 926 person headquarters. - Operational control of an Army corps headquarters, two Army divisions, an Air Force headquarters, eleven USAF tactical fighter squadrons, and a Navy headquarters. Forces added depending upon the crisis.

ACTIVITIES OF READINESS COMMAND

Mr. **Carlucci**. The Readiness Command commands U.S. based general purpose forces, provides U.S. based combat forces for overseas combat commands, develops operational concepts, tactics, techniques, and procedures for joint operations of U.S. forces, trains U.S. forces during joint exercises, provides planning and commands forces for the land defense of the United States and Canada, and provides forces to assist in civil defense and disaster relief.

None of these functions is carried out by the RDJTF. If we were to abolish the Readiness Command, we would have to reestablish some command to carry out these functions.

Senator **Stevens**. That was precisely the testimony we received last year, that the Readiness Command would stand down if we created the RDF.

Mr. **Carlucci**. I think General Warner may have made such a recomendation, but I doubt that anybody testified that was the administration's——

Senator **Stevens**. That was the recommendation. That is true. If this force was funded the recommendation would be that the Readiness Command would be disbanded.

PURPOSE OF READINESS COMMAND

Mr. **Carlucci**. That was one person's recommendation, Mr. Chairman. It was not accepted because these functions are not being carried out by the RDJTF. The purpose of the Readiness Command is to provide a general reserve of forces to include the training for those forces, to do the planning for those areas of the world that are not planned for by other CINC's basically southern Africa—Africa south of the Sahara—and to provide for the defense of the continental United States and Canada. The RDJTF has none of those responsibilities.

Senator **Stevens**. Well, I recall when President Carter announced his new Persian Gulf concept; I can't remember one member of this committee that said we could carry it out, and yet we are going further and we are going to create a theater out there and commit ourselves to defend the theater.

Mr. **Carlucci**. Mr. Chairman, if we can't carry it out, we ought to make a public statement that Southwest Asia is not in our vital interests. We as a military organization are obliged by the decision of both administrations that this area is in our vital interests to try and plan to carry out the mission.

We currently have for OPCON purposes some 42,000 men and women assigned to the RDJTF. That is approximately 2 divisions and 11 tactical fighter squadrons. For planning purposes, we also have about 220,000 men and women, which consist of 3⅓ divisions, 1⅓ marine amphibious forces, some special forces and 13 tactical squadrons. [Deleted.]

Our assessment is that with adequate warning time and with the capability for air interdiction the RDJTF would represent an adequate deterrent to the Soviets in Southwest Asia. We have to bear in mind that the Soviets, even though they have some 25 divisions across the Iranian border, would have to cross very rough terrain. If we were able to position our forces early, we could certainly give them a very rough time. But it is exceedingly important that we develop additional force mobility in order to do this.

AIRLIFT/SEALIFT CAPABILITY

Senator Stevens. What about the airlift/sealift capability? Is it primarily associated with the new theater in Southwest Asia?

Mr. Carlucci. It is not specifically attached to the new theater, but it provides the kind of capability that we would need in the new theater. As you are aware, we have requested additional funds for rapid sealift, for the SL-7 conversion, and for pre-positioning. The pre-positioning money would be for the Southwest Asia area. The rapid sealift, of couse, is flexible and could be used for the reinforcement of NATO or other contingencies around the world.

Senator Stevens. You seem to be reluctant to call it a theater. Are we to call it a theater?

Mr. Carlucci. We haven't decided on a name. That is why I am reluctant. But I think it is fair enough to call it a theater.

Senator Stevens. There is a substantial commitment, at least in my mind, and I don't know about the rest of the members of the committee, if we are creating a theater for Southwest Asia that we are going to defend without regard to whether they are prepared to defend themselves and without regard to the actual commitments to that theater as far as allies are concerned.

ALLIED COMMITMENT TO SUPPORT NEW THEATER

You mentioned in your statement the presence of the British and the presence of the French, but what commitments have they made to this area in terms of support of our concept here of a new theater?

The other thing I wonder is we see a story in the paper, in the Washington Post quoting an internal Pentagon document that leaked and we requested it and we were told we can't have it. It supposedly outlines the force structure planning for the whole Persian Gulf region and its interrelationship to NATO.

You know, documents leak, but, on the other hand, that was very intriguing. If we are supporting forces in NATO for NATO, that is one thing. If we are augmenting forces in NATO in order to have prepositioning for the Southwest Asia theater, that is an entirely different thing, and it sounds like that. There has been a substantial increase in the NATO theater in the last 2 years. And, incidentally, a substantial decrease in our allies' contribution to the NATO theater.

Mr. Carlucci. The figures we provided you in the letter from the Secretary on May 19 indicated that U.S. forces ashore in Europe as of December 31 increased from 278,000 in 1975 to 310,000 in 1981—a total of 32,000. At the same time European active military strength increased from 3,039,000 to 3,212,000—an increase of 173,000.

The same document also shows that [deleted].

Senator Stevens. Is this story correct about the priority of this as far as defense areas and the Southwest area is at the top of the priority list?

Mr. Carlucci. No, that is not an accurate statement.

If you start prioritizing areas of the world, that is very dangerous and oftentimes misleading. It is highly scenario dependent, and this would be a Presidential decision made at the time.

If you push me to the wall I will let my military colleagues speak for themselves—I guess I would have to say that [deleted].

ALLIED ASSISTANCE IN AREA DEFENSE

Senator STEVENS. Well, it seems all the more reason for the administration to take the lead and get some assistance in preparing to defend the area. We have one nation over there that has $60 billion in hard currency in their vaults that they don't even draw interest on. Are they contributing? Is Saudi Arabia going to contribute to this effort? We have asked the Germans to contribute. We have asked the NATO people to contribute to the defense of their area. These people profiteer on our economy every year. I don't see any indication at all of willingness to defend themselves or of a willingness to join together as the NATO countries have to defend themselves.

Mr. CARLUCCI. Mr. Chairman, the Saudis are quite anxious to strengthen their military forces.

Senator STEVENS. Are they willing to have us have a base in their country?

Mr. CARLUCCI. Not at the present time. [Deleted.]

Senator STEVENS. It is an embarrassment to them if we are there, but as soon as they are in trouble we are to go there very rapidly at great expense to our taxpayers.

Mr. CARLUCCI. I think it is more than just an embarassment, Mr. Chairman. [Deleted.]

Other countries are assisting us in this way. As you are aware, we have facilities arrangements with Oman, Somalia, and Kenya, and we have been talking with Egypt for some time now about Ras Banas. So we are moving toward a capability to have facilities for our forces out there.

As far as the Europeans are concerned, we have laid out a complete program in various presentations, including ones by Secretary Weinberger in May and December at the meeting of NATO Defense Ministers, for an increased activity in Southwest Asia to include a peacetime military presence in Southwest Asia, economic and security assistance to key countries, overflight routes and enroute access, improved strategic mobility which is fundamental to the deployment of forces either to Europe or Southwest Asia, and military participation by the allies in the defense of our vital interests in Southwest Asia.

We have laid out under each of these categories specific actions that the allies could take. So we are moving ahead on this program, and indeed there are discussions on this very subject going on in Bonn today.

Senator STEVENS. I will ask just two more questions and then I will yield to my colleagues.

EUROPEAN DEPENDENCE ON IMPORTED OIL

One, it is my understanding that Europe is 50- to 70-percent dependent upon this region for their petroleum. We have about 8 to

10 percent of ours coming in. Has our Government sought the active support of the governments of Western Europe to support this concept of a new theater there and the permanent commitment to defend it?

Mr. **Carlucci.** Yes sir, we have.

Senator **Stevens.** Are they going to contribute to it particularly?

Mr. **Carlucci.** They are receptive. The [deleted] they do recognize that the defense of this area is in their interests as well as ours.

As far as oil is concerned, the figures you cite are approximately correct, but of course we do have oil-sharing arrangements with the Europeans, and if they were cut off, we would suffer as well.

JAPANESE DEPENDENCE ON OIL IMPORTS

Senator **Stevens.** What about the Japanese? They have even greater reliance on this area for energy. Are they involved at all?

Mr. **Carlucci.** The Japanese do not have the capability to project forces into the area, as you are aware. Their military capability is limited to their self defense.

Senator **Stevens.** They all have money, Frank.

Mr. **Carlucci.** Indeed, and we have talked to them about money. I agree, Mr. Chairman, that they should be providing economic assistance and they should be providing political support even if they cannot provide direct military support, and we have talked to them about that.

Senator **Stevens.** Well, I am going to yield to my colleagues, and when the time comes I am going to have to go downstairs because my amendment is the first one up at the conference.

But I will tell you this. I am going to split from the administration on this. I think the worst burden that our country has today is this umbrella we are keeping over West Germany, Western Europe, and the Japanese, and here is an increased hole in the bottom of our Treasury, something that President Carter started. As I said, every one of us that made a statement at the time said we could not do it and we could not afford it, and we have expanded it. We have expanded it in a way that we are going to take off of the Germans, off of the French, and off of the Japanese any obligation to provide their money to support it. That is a direct burden upon our economy and it is even going to worsen our financial circumstances if our American industry, our taxpayers have to support this kind of commitment to an area that won't defend itself, where the people who buy from them won't commit themselves to defend them, and somehow or other we are putting a new umbrella over the Persian Gulf following Carter's worst decision as a President, in my opinion.

I just am not going to support it, Frank. That is all there is to it. Senator Garn.

Senator **Garn.** Well, I have no questions. I was not at the first hearing so I came primarily today to listen. I would make a brief statement, however.

JAPANESE COMMITMENT TO MILITARY SELF-ASSISTANCE

I do not totally agree with Senator Stevens, but I am increasingly concerned about the unwillingness of our NATO allies and Japan to help. I am well aware of the constitutional prohibitions on Japan and that was one of our mistakes. We wrote their Constitution for them.

But Senator Stevens makes a very good point. They have got a lot of money. I think we need to be a lot tougher. They are selling a lot of automobiles here, too, in this country and hurting our economy in a number of ways. I was hopeful this administration would be a lot tougher, particularly with the Japanese on asking for help. There is no prohibition that says they can't have a little foreign aid program of their own. There is nothing that says they can't build ships and give them to us for their own defense.

This administration's attitude, the softness as far as I am concerned on things like the Siberian pipeline and not being tougher with our allies has proven to be a disappointment. I realize there was a little attempt over there at the summit, but it was a little bit late.

I just think, without getting into the specifics of rapid deployment and the whole thing, that we are not pressing our allies nearly enough and they are taking advantage of us. We are having increased defense expenditure problems with increased competition. We get involved with the subsidization of interest rates. The credits situation, from my position on the Banking Committee, is absolutely intolerable to me.

Forgetting high technology transfers and things of that nature, I don't think the American people are too happy when they pay 17 percent for mortgage loans when we have got Western banks making loans of 9 percent to the Soviet Union.

Senator STEVENS. Seven.

Senator GARN. Well, most of them are at 9.

The French are 100 percent and the Germans are talking about going to 100 percent with no downpayment.

I am getting away from just the Rapid Deployment Force to the broader picture. I don't expect any answer. I don't expect you to be able to answer for the administration, but I am going to continue to press on a lot of these broader issues and see if we can't get more help from our allies.

Mr. CARLUCCI. Senator Garn, I agree with many of the things that you have commented on. The credit situation is deplorable. As far as the pipeline is concerned, I don't regard that as a finished issue with Japan. I think it is a question of tactics. [Deleted.]

I would note that the 7.5-percent increase in the defense budget stands out in contrast to decreases in their domestic programs this year and it is generally interpreted as moving in our direction. It is not as much as we would like to see, but we are beginning to see some movement in Japan. I agree with you that they could do a lot more and we have to continue to press them.

But, we have to be very careful when we talk about this subject not to end up shooting ourselves in the foot. After all, the NATO alliance is in our interest as much as it is in the interest of the

Europeans and we do not want to do things that would destroy the alliance.

Senator GARN. I don't disagree with that. I just hope we would wake the President when we do whatever we do. Secretary Haig might let him know what is going on in the world. I say that only half facetiously because I am concerned about some of these image problems. Again, I am getting far away from RDF. So I will stop.

Senator RUDMAN. Mr. Secretary, I just want to refer to page 2 of your statement. You changed a paragraph which logically is at points with itself. You say: "Second, we will engage the Soviets in combat if necessary in the region. That is why we plan to increase the forces with a primary Southwest Asia orientation from roughly two or three divisions today to [deleted] in the mid-eighties. The RDJTF compels the leaders in the Kremlin to view any Soviet large-scale aggression in Southwest Asia in the context of a long and unpredictable war." [Deleted.]

That is precisely what they would do.

We came through the 1960's with indigenous forces doing a number on our great U.S. Army, Air Force, and to some extent the Navy. What do you think they would do in Southwest Asia this time against more numerous Soviet forces?

Mr. CARLUCCI. Those few paragraphs, Senator, have to be read in conjunction with the succeeding paragraph which says that the Soviets would have to recognize that any such effort could escalate into a much larger war. Bear in mind that the goal here is deterrence. We have to make them stop and think. They have to know that they can't get away with a small blitzkrieg operation. If we have our [deleted] divisions, this tells them that they can't do that.

If they decide that they want to pour in the 25 divisions they have across the Iranian border, they have to recognize that they are running the risk of a global war. That is all this says.

Senator RUDMAN. Well, quite frankly, I think the Soviets understand full well that if they put one platoon across the border in the territories of our natural allies, in places other than Afghanistan (which had a different context altogether), whether or not we have an RDJTF, we would have a serious problem with a global war facing us.

So I just wonder whether or not we are just patching things over here and spending money that might be better spent someplace else.

Mr. CARLUCCI. Two points. First of all, I respectfully disagree. The only thing the Soviets respect is force and our capability to have force on the scene. [Deleted.]

Second saying that we are not going to have this capability doesn't mean we are going to save money. The forces that we are talking about generally have two and sometimes three missions. They are forces that could also be used to reinforce Europe.

The RDJTF is essentially the creation of a planning capability, a training capability, a liaison capability, better security arrangements with the regions and security assistance programs that would enable us to pull it all together. That is the responsibility of the headquarters. The forces are a reserve of forces that are basically multipurpose.

I don't know, Bob, if you want to expand on that.

General **Taylor**. That is right. As you indicated, Mr. Secretary, they have several missions. The 82d Airborne, for instance, had at the last count some 12 different operation plans that it responds to. What our headquarters provides is a fully trained command and control element that can respond as efficiently as possible to any type of contingency in the area.

Senator **Rudman**. Well, I just have to say to you that I think one variable is not being considered at all in this doctrine. I don't mean what you are talking about here in terms of appropriations, but rather what obviously is a doctrine evolving in the Department of Defense in your planning. That doctrine assumes something I don't think you can assume: that the American people are going to stand by and watch us contribute men, material and money. I don't think that is going to happen again.

Mr. **Carlucci**. I agree.

Senator **Rudman**. It happened once. It will never happen again.

Mr. **Carlucci**. We agree thoroughly. As an integral part of this program we are trying to work with our friends in Southwest Asia to develop their capability to defend themselves. We are trying to work with our allies in Europe to get them to project more of their power in the area—both their military power and their economic and political power. It is all part of a total program.

PETROLEUM DEPENDENCY

Senator **Rudman**. Well, I will come back to what Senator Garn and Senator Stevens said. The fact of the matter is that probably the greatest interest in that region in terms of their own industrial security and that of the Japanese is what they depend on for petroleum, and I see no indication whatsoever that they are really changing. The Japanese are using their Constitution very conveniently, I think, as a defense against spending more on defense and they show no inclination toward helping us in that region to the extent they should.

I believe we will see a reaction which is slowly building here in Congress against some of our own commitments in Southwest Asia because of that, and I think that most of us would like to spend the money on our own strategic forces. That may be an isolationist type of a point of view, but if it keeps going the way it is, I think you will find that attitude more and more in the Congress, judging from the members I have talked to.

Mr. **Carlucci**. Once again, Senator, we do think the Japanese are moving slowly in the right direction. They are indeed constrained by their Constitution [deleted].

Our view on strategic forces, as you know, is that we need to modernize our strategic forces, but at the same time we need to have adequate conventional forces to defend areas that we consider in our vital interests. As I indicated in my prepared statement, this doesn't mean matching the Soviets division for division. We would never be able to get to that point, but it does mean having a credible deterrent.

SOVIET INTERVENTION IN MIDEAST CONFLICT

Senator **Specter**. A couple of questions, Mr. Secretary. Do you see any scenario where the Soviets might get into the current conflict in the Middle East?

Mr. CARLUCCI. I think it is a possibility. I would not say it is a likelihood at this stage. But as you know, Senator Specter, they have developed very close relationships with Syria. They have supplied Syria with enormous amounts of equipment, and if my memory serves me correctly, there are approximately 4,000 Soviets in Syria right now. They are engaged in planning. They are helping to man some of their air defense systems. There are no Soviet combat units in Syria, but should Syria become involved in an all-out war with Israel, the Soviets would view their equities as being affected.

Senator SPECTER. What would the timespan be in the logistics of having the Soviets bring forces into that area?

Mr. CARLUCCI. [Deleted] get them into a place like Syria in a matter of days.

General TAYLOR. I would agree.

Senator SPECTER. What is the expectation, if there is one, as to how long Israel anticipates it taking to get done what they have announced publicly is their aim?

Mr. CARLUCCI. They virtually have done what they have announced publicly is their aim. [Deleted.] But, as you know, we are urging a cease-fire upon them.

ISRAELI EXPANSION AIMS IN LEBANON

Senator SPECTER. Is there any concern at all that there might be more expansion of Israeli aims with respect to Syria beyond the Lebanon objective?

Mr. CARLUCCI. [Deleted] they have said that they want to clean out those parts of the Bekaa Valley that can target Israel. That is to say, in the lower Bekaa Valley you can hit Israel with artillery, and apparently they are seeking to eliminate that artillery.

General DALTON. And to prevent the SAM's in the valley from interfering with their operations in the neighboring part of Lebanon.

Senator SPECTER. [Deleted.]

Mr. CARLUCCI. [Deleted.] As I indicated earlier, currently we have 3 divisions and 13 tactical fighter squadrons under the operational control of the RDJTF.

Senator SPECTER. Where are they located?

Mr. CARLUCCI. The 101st Air Assault is located at Fort Campbell, and the 82d Airborne is at Fort Bragg.

Senator SPECTER. [Deleted.]

Mr. CARLUCCI. [Deleted.] They are two of our most maneuverable forces. They are light divisions.

General TAYLOR. We have trained with them specifically for 27 months now to develop our capability to rapidly tailor out of those forces a force package that would be appropriate to the threat and the task.

Mr. CARLUCCI. We also have carriers in the Mediterranean.

Senator SPECTER. Just one other question before yielding to Senator Kasten. I was also interested in the same paragraph that Senator Rudman picked up about we would engage the Soviets in combat if necessary in the region. That is a very direct statement, more direct than most that appear on paper in writing. What is your expectation or speculation or opinion as to the possibility of having limited engagements with the Soviets that would not escalate into a nuclear conflict?

Mr. CARLUCCI. I think it is theoretically possible to have those kinds of engagements, but obviously there is very, very substantial risk that that kind of war would spread horizontally. I think there might be more reluctance to have vertical escalation to strategic nuclear warfare. I think both countries would be very reluctant to cross the nuclear threshold.

But once again you have to look at it in terms of what is a credible deterrent and not necessarily in terms of war fighting. Unless we are prepared to put troops on the ground, I don't think the Soviets are going to believe we are credible.

Senator SPECTER. I quite agree with you on the issue of deterrence and strength and prevention. But once you have an engagement of the Soviets in combat as you have in black and white there, it seems to me that it is very unlikely that that can be limited. When the two big kids on the block get into it, then there is a matter of pride and a matter of stature and how do you have a limited conflict with a number of divisions or land crews?

Mr. CARLUCCI. That is precisely why the deterrence is credible: it is not likely to remain limited.

Senator SPECTER. So you think that Senator Rudman's suggestion of a platoon may be sufficient?

Mr. CARLUCCI. I think if the Soviets are aware that this is an area of vital interest and, as Senator Stevens pointed out, it was not this administration that declared it an area of our vital interest, even though this administration continues to believe that it is an area of vital interest to us, then we, as a military organization, have to plan for a credible deterrent—and that is what we are trying to do.

Senator SPECTER. Thank you very much, Mr. Secretary.

STATIONING OF GERMAN TROOPS

Senator KASTEN. Mr. Secretary, I didn't understand your statement about Germany. Did you say that the German Constitution prevents Germans from having troops outside of Germany?

Mr. CARLUCCI. Outside of Europe I think.

Let me ask my German expert here, Mr. Bader.

Mr. BADER. Yes, outside the NATO treaty area.

Mr. CARLUCCI. Yes, it is outside.

Senator KASTEN. Yes, outside of Germany or yes, outside of Europe?

Mr. CARLUCCI. Outside of the treaty area. They can provide troops to other NATO countries.

Senator KASTEN. That is an important point. If U.S. troops stationed in Germany, or in other NATO countries, were required for a Rapid Deployment Force action, there is no reason that German troops could not replace them. Haven't we been trying to acheive at least some agreement in principle to that sort of arrangement with the German Government?

Mr. CARLUCCI. [Deleted.]

Senator **Kasten**. They were less than receptive to that idea at the Wehrkunde Conference about that a year ago. Bill Cohen and a number of people on the Armed Services Committee were making an issue of this.

Mr. **Carlucci**. You may recall that I gave a speech along those lines.

Senator **Kasten**. The point I'm trying to make is that there is no constitutional prohibition against German troops replacing American forces within the territorial boundaries of NATO. If the German Government hasn't agreed to this principle, it is not because it can not do so but because it simply won't do so.

Mr. **Carlucci**. [Deleted.] I think we have made some progress since the Wehrkunde Conference. As I indicated in my statement, they are providing more support. They are prepared to provide some 93,000 Reservists who would perform basically supply and logistic functions for our forces. [Deleted.]

Senator **Kasten**. The political situation in Germany might help move that along as well. We will just have to wait and see how that develops, but it seems to me that it is going in that direction.

Our allies have to understand that their financial and military participation, as well as their public support, is critical to continued U.S. support for some of the things we're discussing today.

It is too bad this isn't an open hearing. These are the kinds of things that representatives of the NATO governments ought to hear more about.

Mr. **Carlucci**. Senator Kasten, you may recall that we have had a couple of open hearings which have left an indelible imprint on the local representatives of foreign governments, and they have been in to see me about it.

OVERSEAS FACILITIES

Senator **Kasten**. I am concerned about the availability of facilities overseas. Could you lay out the total plan on these facilities and how they relate to each other and to our overall deployment plans.

I hope we are being realistic in this whole planning process. Are we really going to have access to these overseas facilities when we need them? Do we have written agreements with the countries involved? Or, for that matter, would a written agreement make any difference?

Our own European allies denied us overflight rights in 1973. And that denial came from long-term, stable allies that we thought we could count on. It seems to me we're placing a great deal of stock in substantially less stable regions of the world.

What is your response to a recent statement by Jeffrey Record that:

The RDF as currently created is critically dependent on the presumed good will of unstable potential host regimes in the region whose interest in the Gulf are far from identical to ours.

I'm interested first, in the overall problem and second, in the kind of cooperation we're expecting from potential host nations.

Mr. **Carlucci**. The overall problem is one of creating the kind of security assurances that will enable those countries to feel at liberty to be directly and overtly associated with us. Time and time again when I have visited the region over the past 5 years they have said to me: We can't be helpful to you because you are not acting like a big power. We don't know where you stand. You vacillate. Do you have a commitment to this region or don't you? That is why the concept of the RDJTF is important for psychological reasons.

[Deleted.]

Senator **Kasten**. Mr. Secretary, let me just interrupt. I didn't ask you to explain the problems out there. I understand. I am agreeing with you. You just established my premise. [Deleted.]

Mr. **Carlucci**. No, I don't think so. I think we [deleted].

We have right now three formal signed agreements' with Oman, Kenya, and Somalia [deleted]. This is a significant breakthrough. [Deleted.] The main facilities in Oman [deleted] Thumrait, Seeb [deleted]. In Kenya we are talking about a seaport at Mombasa [deleted] in Somalia we are talking about aerial and seaports at Berbera and Mogadiscio. We also have an understanding with Egypt where we can use Ras Banas. There is some feeling in the Congress that we ought to have a formal agreement with Egypt, but the Egyptians feel that this is not politically tenable at the time. [Deleted.]

I have a classified paper which I would be glad to submit for the record which lays out in detail the facilities that have been granted to us and the kinds of use that we intend to make of them.

[The paper follows:]

Summary of Limitations on SWA Access

[Deleted.]

Mr. **Carlucci**. So our capability to project power does exist.

Senator **Kasten**. [Deleted.]

Mr. **Carlucci**. [Deleted.]

In order to project power you are dependent on the good will of other countries, and, yes, these countries do have fragile political structures. But the compelling reason remains namely that the raw materials of that area are badly needed for us to maintain our industrial machine and we have to find the best way we can to project our power.

RAS BANAS

Senator **Kasten**. You included Ras Banas in your list. I'm sure you're aware that the House Military Construction Subcommittee turned down your request for Ras Banas last week. Do you still plan to push for those funds? I visited Ras Banas a couple of months ago. I believe the administration's request were roughly $100 million to begin the work there?

Mr. **Carlucci**. That is right.

Senator **Kasten**. And the House subcommittee turned it down completely.

Mr. **Carlucci**, We are looking to the Senate to help us out.

Senator **Kasten**. Are you saying that you don't have a clear plan for how that is going to work? [Deleted.]

Mr. **Carlucci**. [Deleted.]

Senator **Kasten**. Are you no longer supporting Ras Banas? Where does this stand?

Mr. **Carlucci**. Our plan is to continue with Ras Banas. We think we have made a good case. The House seems to be concentrating on a perceived need for some kind of formal agreement with the Egyptians, and the Egyptians are still reluctant to provide a formal agreement.

[Deleted.]

So we ought to seize the opportunity and move ahead and develop the kind of facilities that are being offered us.

My colleagues could expand on the physcial nature.

Senator **Kasten**. One press report said the chief reason for the vote, according to subcommittee sources, is that the United States has no assurance of ready access to Ras Banas. That is not true, is it?

Mr. **Carlucci**. No. That is just not true.

Senator **Kasten**. [Deleted.]

Mr. **Carlucci**. [Deleted.]

Senator **Kasten**. [Deleted.]

Mr. **Carlucci**. I talked personally with President Sadat before his assassination on this and he was quite categoric. I am sure President Mubarak takes the same attitude.

Senator **Kasten**. Do you see any circumstances under which [deleted].

Mr. **Carlucci**. [Deleted.]

DIEGO GARCIA FACILITIES UPGRADE

Senator **Kasten**. I just have one further question. What are your plans now for Diego Garcia and how much money is included in this year's request for work on that island? [Deleted.]

Mr. **Carlucci**. We do have plans to upgrade the facilities in Diego Garcia, including lengthening the runway. In terms of actual dollars I would be able to submit that for the record.

[The information follows:]

DIEGO GARCIA FACILITIES UPGRADE

For fiscal year 1983 the costs of improvements at Diego Garcia are given below:

Diego Garcia facilities upgrade

	Thousands
Navy:	
Operational facilities:	
Control tower	$3,690
ASW Operational/Command Center	8,470
Photo lab	2,070
Wharf POL lines	1,000
Total	15,230
Support facilities:	
Electrical power and distribution	11,900
Aviation warehouse	3,100
Telephone exchange and lines	2,150
Administration facility	3,600
UEPH	15,700
Public works transportation facility	9,100

Personnel facilities	17,450
Total	63,000
Communication facilities	2,400
Navy total	80,630
Air Force:	
Upgrade runway	31,900
Avionics maintenance facility	2,660
Aviation spares warehouse	1,990
Air Force total	36,550
Diego Garcia total	117,180

Senator KASTEN. Can you describe your overall plans for those facilities?

Mr. CARLUCCI. More pre-positioning of ships out there for one thing, and upgrading the runway.

Bob, why don't you comment.

General TAYLOR. It is primarily to upgrade the airfield and its support facilities and to build the support facilities required to house the people and the activities associated with the near-term pre-positioning force. The 13 ships we have out there are providing us our basic pre-positioning capability right now.

Mr. CARLUCCI. We figure that we have $117.2 million for those construction projects in 1983.

General TAYLOR. It makes the airfield [deleted].

Senator KASTEN. Mark, thank you. I didn't mean to take so much time. I have some other questions which I will submit for the record dealing with land based versus mobile, sea-based forces. I believe you've had discussions along this line with the Armed Services Committee.

As I said before, I'm generally supportive of the concepts presented here today. But I don't think it is likely that we can move very far on them without more definite support from our allies. This is just not a time when these large commitments are going to be made. Germany, Japan and some of our other allies seem to have taken the attitude that any move on their part is a major concession to U.S. demands. And that attitude just isn't setting well with those of us in Congress or with our constituents back home.

Mr. CARLUCCI. We are very conscious of the political climate here, and we are talking intensively to our allies about that.

Senator ANDREWS. Thank you, Bob.

Let me get some basic questions in so that we can have them for the record.

The committee still has serious reservations about the need for yet another unified command, another four-star general and all that that implies, and a staff of nearly 1,000 people as we see it. We even have to build new facilities to house this additional bureaucracy.

Why can't this whole thing be streamlined within existing commands?

Mr. CARLUCCI. I think you have to bear in mind, Mr. Chairman, that prior to 1979 very little planning had been done for this region and we rested secure in the knowledge that Iran was a bastion of strength. If we had had to deploy to the region, nobody could have told you how to do it. We just did not have that capability anywhere in our forces.

Consequently, over a period of time, we have been developing that capability. If we had to move in, as Senator Specter postulated, to the Middle East today, we could tell you how to do it, and we could get a significant number of forces there. That does require people, but let me ask General Taylor to elaborate on that.

General Taylor. Yes, sir; the headquarters element itself is not a gigantic bureaucracy. We started very modestly with a size of about 260 people 27 months ago to develop the planning, the training, and the exercising required to assure that we could deploy our forces efficiently and pull together all four of the Services as rapidly and as efficiently as possible. Now a lot of that planning has been done.

The large numbers that you are referring to are related to our transition to a unified command with responsibilities in the area. Those are other responsibilities. This is going to be a unique unified command which has to deploy all its supporting and administrative capabilities. Most of the other commands have established support in their area locations.

Senator Andrews. But as I recall the testimony we had a month or two ago on this subject, we were told by the general in charge of putting it all together that he didn't have these different cadres of troops really ready to move over. He didn't even have identified where he would find a hospital supporting unit, as I recall the testimony that was given.

Now you say that it is ready to go, that you need this planning to make the thing work, but the testimony that we had was that the planning that has been going on since 1979 hasn't given us anything except a set of plans.

Mr. Carlucci. The planning has accelerated greatly since it became a separate task force October 1, reporting directly through the JCS, and I think a good deal of progress has been made. I would be very surprised—if you are referring to General Kingston—that he would have testified 2 months ago to the effect that they don't have this planning because about 2 months ago I was down there and he was telling me what plans they had developed.

Senator Andrews. He testified a couple of months ago to the fact that they didn't even have notice or any idea of where they would pick up such a basic function of an RDF as a hosptial ship or a hospital group.

General Taylor. No, sir; I think something has been taken out of context because we had done the planning. I am General Kingston's deputy. I have been involved in this operation for 27 months.

Senator Andrews. All I can go on is the response that General Kingston gave Senator Stevens and myself when he was up here. I am recalling without the benefit of notes or the prior testimony——

General Taylor. There is a shortfall in the hospital beds area, but we had clearly identified——

Senator Andrews. He told us he didn't have any idea where he was going to get it. He didn't even know whether he might get it from a Reserve or a Guard unit, but he had no idea at that time as I recall.

General TAYLOR. Again, I don't believe it was in that context, sir. We do know that planning has been done; we have identified the shortfalls and there is some capability. We don't have all the capability we need for a worst case plan, but the basic planning has been done, the requirements have been identified, and in the programs that have been developed over the next 5 years those requirements are going to be satisfied if those programs come to fruition.

Senator ANDREWS. Well, as I understand it, even with this topheavy and expensive new unified command for Southwest Asia, which is in essence what it is—[Pause while Senator Andrews confers with staff.] Let me go back to this and insert for the record that they say: "Medical assets presently assigned or dedicated to the Rapid Deployment Joint Task Forces are insufficient [deleted].

Mr. CARLUCCI. I think you have to make a distinction there between capability and planning. They have the planning necessary to avail themselves of what capability we have, but one of the deficiencies we identified early in this administration when we came in was that sufficient capability in the medical area had not been developed to support the RDJTF, and I gave instructions in the budget process that we would move ahead.

Senator ANDREWS. Well, that is true, but mind you what I am reading is your answer. I don't have the questions and verbal response that I got from General Kingston on that, but the question, as I recall it, and the verbal response as I recall it, was that they didn't have identified where they would find these hospital units. They didn't have identified whether they would pick them out of the Guard or out of the Reserves. They didn't have seemingly any idea of where they were going to find this. At least that is my off the top of the head recall.

Let me provide for the record the interchange that I had, either I had or Senator Stevens had with General Kingston and then let you develop it because what I just gave you is your answer, your insert for the record which goes on to say that the medical assets are insufficient, and you admit that, but the verbal exchange was even more appalling because it indicated, as I recall now some weeks later, that you not only didn't have it, but you didn't know where you were going to get it or how it was going to be set up.

Mr. CARLUCCI. If it doesn't exist you can't have it, but I think they do have a plan to avail themselves of that capability that exists.

[The interchange with General Kingston referred to follows:]

EXCHANGE BETWEEN SENATOR ANDREWS AND GENERAL KINGSTON

Senator ANDREWS. Looking at the complete, overall picture then, what medical support capability do you have? Do you have that planned to support the RDJTF?

General KINGSTON. Yes, sir, I do. My components do.

Senator ANDREWS. Do you have some hospital ships assigned to your site of operations?

General KINGSTON. No, sir.

Senator ANDREWS. Then how do you know you have them?

General KINGSTON. I know exactly the status of my medical support. I will be glad to submit it for the record. It is classified. I will tell you it is not adequate.

[The information follows:]

STATUS OF MEDICAL SUPPORT

[Deleted.]

All Services have included, in the fiscal year 1983 budget, funds for improving medical support. These funds will purchase additional hospital beds, ancillary units, individual and unit training programs, research and development, medical supplies, facilities for evacuating patients, and aeromedical evacuation crews.

[Deleted.]

Senator ANDREWS. It is not adequate?

General KINGSTON. That is correct.

Senator ANDREWS. In other words, for moving into an area like this, you don't have identified those hospital ships?

General KINGSTON. I have identified my requirements, sir.

Senator ANDREWS. That is fine, but you know, Pago Pago can identify their requirements and say they have an RDJTF going, but if you have not only not identified but not located, you don't really have much, do you?

General KINGSTON. Now you are understanding why this is a very interesting job.

Senator ANDREWS. I am sure it is a very interesting job; it sounds like you are going to go out there on your own and "yahoo" at that. Custer tried that and got into some trouble in my part of the country.

CURRENT STRENGTH OF READINESS COMMAND

Senator ANDREWS. Well, let me get back to the other thread of thought. Even with this topheavy and expensive new unified command for Southwest Asia, the information you have submitted indicates the existing Readiness Command will still be maintaining its current strength so that it can deliver support to the RDF. Why can't some kind of savings and efficiency be realized in this bureaucratic shuffle, and why do we need both?

Mr. CARLUCCI. First of all, Mr. Chairman, we wouldn't characterize it as topheavy and expensive.

Senator ANDREWS. You wouldn't, but we have to answer to our Budget Committee and we have to answer to the taxpayers out there that are worried about spending.

Mr. CARLUCCI. That is why I would like to persuade you that it isn't topheavy and expensive. We are mixing apples and oranges. The RDJTF is doing the planning for deployment and sustaining forces in Southwest Asia. That is the central purpose of the RDJTF. REDCOM has many missions. First of all, they have to plan for the areas of the world that are not covered by other unified commands. For example, Africa south of the Sahara. They also have to plan for the continental defense of the United States and Canada. They handle the planning for joint exercises, and they are responsible for supplying the Reserve Forces for any theater in the world. All of these are discrete functions that would have to be done by somebody if they are not done by REDCOM.

SITUATION IN AFRICA

Senator ANDREWS. Well, if Redcom has this assignment and that is what they are doing, let's say something breaks out in, and as you say they have the responsibility for Africa, and something breaks out in Africa and Redcom and the President decide that we have to respond, would they then call on RDJTF or would they then look to other sources within the military to handle the situation in Africa?

Mr. Carlucci. Once again you have to look at what RDJTF is. It is essentially a planning structure with Opcon control of certain divisions. Let's take two of the divisions, the 101st——

Senator Andrews. I know what it is. I am just saying that if you have got a problem in some other part of the world, will Redcom grab RDJTF and run it to the other part of the world, or are you insulating and isolating this new command solely for Southwest Asia?

Mr. Carlucci. They might well avail themselves—and probably would—to the 82d Airborne and the 101st Air Assault. They might use some of the RDJTF control mechanism or they might not, depending on the circumstances. But this gives them the flexibility to go either way.

The forces themselves are dual and in some cases triple-hatted.

Senator Andrews. I know dual and triple hatted, and that is the thrust of the question that the committee is intrigued with because what you have just said is that if there is an emergency in Africa then you will find the Redcom pulling back these RDJTF types and running them to that other part of the world.

OK, if Redcom has that authority, why do you need a whole new infrastructure to move those men and that material to only one part of the world when Redcom would be moving them to six or seven other parts of the world? Why can't Redcom not only move them to Africa but also move them to Southwest Asia?

Mr. Carlucci. Because Redcom does not have that kind of planning responsibility.

Senator Andrews. Well then how is Redcom going to be able to respond to a sudden situation in Africa such as you and I just discussed?

Mr. Carlucci. Because they have had the planning responsibility for Africa south of the Sahara. That is not covered by any other CINC. It is unique circumstance.

Senator Andrews. Well, if you have got a planning command that can move troops in a logical and militarially sound method to South Africa or to Africa or to some other part, why can't that same group be the group that moves the troops——

Mr. Carlucci. Because the essence of the planning process is to understand the locale to which you are deploying forces, to have some assessment of the terrain and the political situation in the country. That is the kind of process they go through.

If, for example, we were to deploy the 82d Airborne to Southwest Asia, say Thailand, they would be chopped to the operational command of CINCPAC because there they have done the planning for operations in Thailand.

Senator Andrews. So if you move a little bit from Southwest to Southeast Asia, move a little bit on the map, then all of the sudden you have got to do away with this 1,000-person command with all of its general officers and have a CINCPAC come in and move the troops into that area.

Mr. Carlucci. CINCPAC has a similar number of people who would be doing the planning for its area, as would Eucom. We need people to plan for various areas of the world. What we are saying here is that Southwest Asia has become important enough to merit separate and detailed planning for possible combat——

Senator ANDREWS. I am not fussing about that, but in the view of this Senator and I think of my colleagues on the subcommittee we feel that 90 percent of the planning in deploying this type of a task force overseas is the same irrespective of what part of the world you are going to go to, and 10 percent has to do with the geography and the location and the climate and the rest.

I understand that you are seeking a location in Southwest Asia for the RDJTF; is this true?

Mr. CARLUCCI. Yes; we would not make a big point of this in an open hearing.

Senator ANDREWS. You are not in an opening hearing and that is why I am asking the question in closed hearing.

Mr. CARLUCCI. It is true that we are looking for a location for a forward headquarters element.

Senator ANDREWS. Well, if you are pursuing such a location, why do we have to spend the money to construct a permanent headquarters for them at MacDill?

Mr. CARLUCCI. First of all, the money is rather modest, as you are aware. [Deleted.]

GENERAL OFFICERS IN RDF UNIFIED COMMAND

Senator ANDREWS. How many general officers are we going to have in this new RDF unified command?

Mr. CARLUCCI. Ten.

Senator ANDREWS. Is the mission capability of the task force adversely affected if the Air Force buys 747's in lieu of C-5's?

Mr. CARLUCCI. Yes, indeed, very seriously affected.

Senator ANDREWS. Why?

Mr. CARLUCCI. Because the 747's cannot meet our requirements. They cannot carry the outsize cargo that we need——

Senator ANDREWS. We went through all that before, but the C-5's can.

Mr. CARLUCCI. Yes, sir, they can.

Senator ANDREWS. That is right, but the point is that if you decided to come out to Bismark, N. Dak., with me and we packed for a 10-day stay, the chances are you would take one large suitcase and one small suitcase. You wouldn't take two identical sized suitcases. You put your big stuff in the big suitcase and your small stuff in the small suitcase and away you go.

Mr. CARLUCCI. May I answer that question in some detail?

Senator ANDREWS. Oh, sure.

Mr. CARLUCCI. First of all, if we were to do that and commit all our C-5's to outsize cargo and be able to move it like a commercial operation, [deleted].

Second, that is not the way a military outfit moves. It moves as a unit which may have some outsize and some oversize cargo, some regular cargo.

Senator ANDREWS. That is right, and when they all take off you have got some small planes and some large planes and away you go.

Mr. CARLUCCI. You can't plan it exactly like that. Second, you cube out before you weight out.

Senator **Andrews**. Let me point out your own answer or the answer of your ship. The question was: Assuming a 1 week deployment scenario, what percentage of flights or cargo would be considered outsize? Your answer: Approximately [deleted] percent. Now if [deleted] percent is this outsize stuff that can only fit into a C-5 and the rest of it is stuff that can fit into a 747, why can't you have a mixed fleet?

Mr. **Carlucci**. Because that [deleted] percent refers to weight and the problem is cube.

Senator **Andrews**. What do you mean, outsize is outsize. If we asked the question outsize, you would give us a nonanswer?

Mr. **Carlucci**. I didn't write that answer, but a lot of the outsize——

Senator **Andrews**. Well, the people in your ship wrote it and classified it on May 12.

Mr. **Carlucci**. Let me elaborate on it because a lot of the outsize is relatively light equipment. Our aircraft cube out before they weigh out.

What we have done is run models on this. We have demonstrated through the models that in any of the four scenarios there is over a 50-percent shortfall in our ability to meet delivery requirements for outsize equipment. I would be glad to submit charts.

[The information follows:]

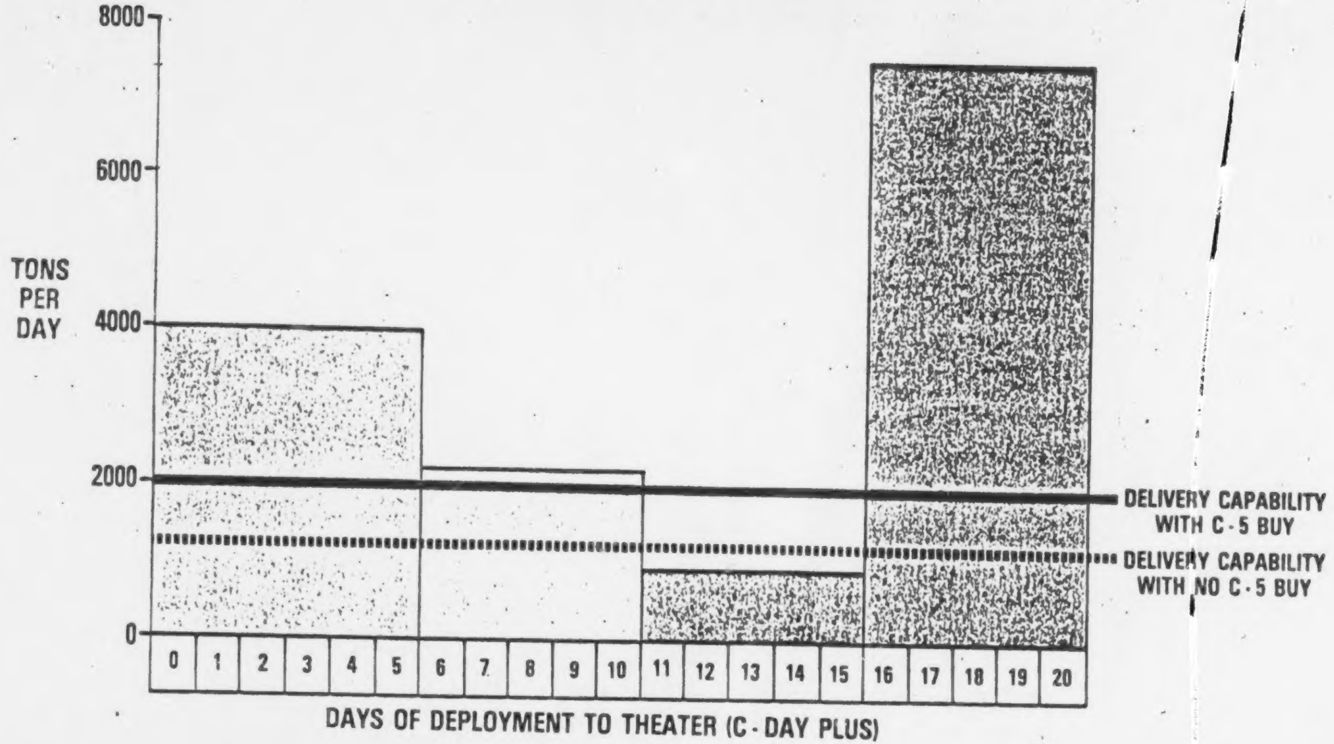
CMMS

Outsize Cargo Shortfalls

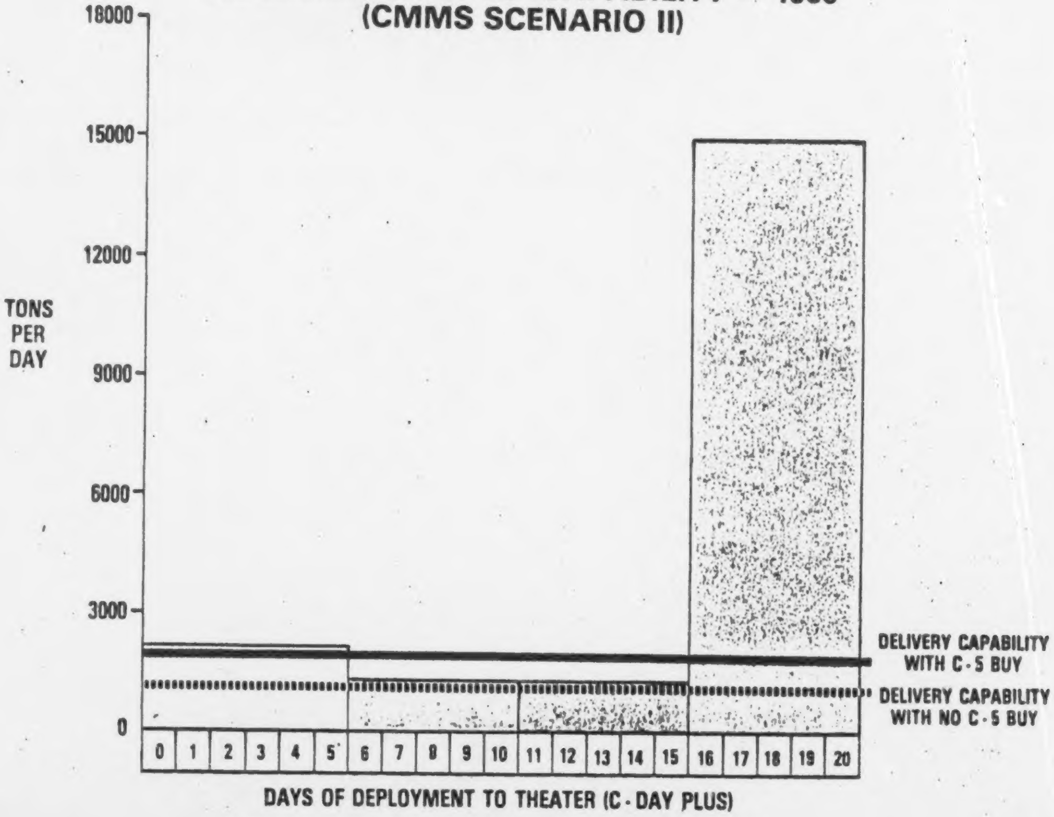
(Measured 20 days after decision to deploy, using existing C-5 fleet dedicated to moving outsize cargo with no regard to unit integrity)

	(1) Outsize Required (tons)	(2) Outsize Delivered (tons)	(1)-(2) Shortfall (tons)	$\frac{(1)-(2)}{(1)} \times 100\%$ Shortfall Percent
Scenario I	77,000	24,000	53,000	69%
Scenario II	131,000	24,000	107,000	82%
Scenario III	141,000	30,000	111,000	79%
Scenario IV	79,000	26,000	53,000	67%

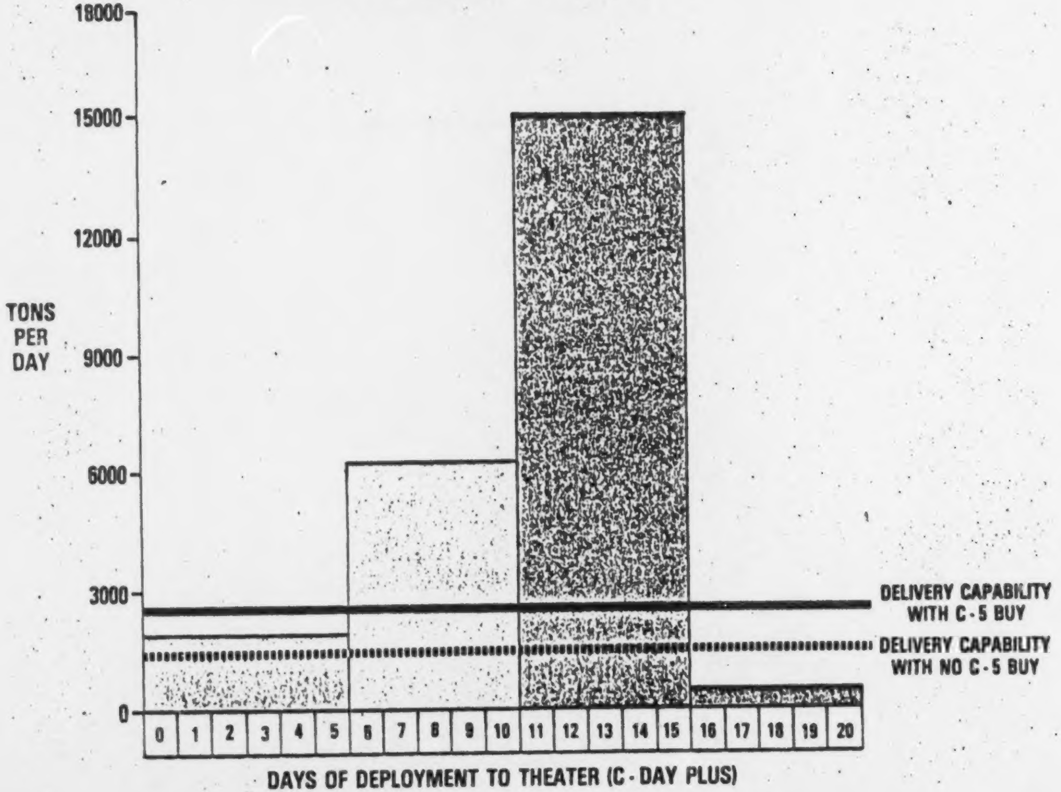
DOD OUTSIZE CARGO AIRLIFT REQUIREMENTS VS CAPABILITY — 1986 (CMMS SCENARIO I)



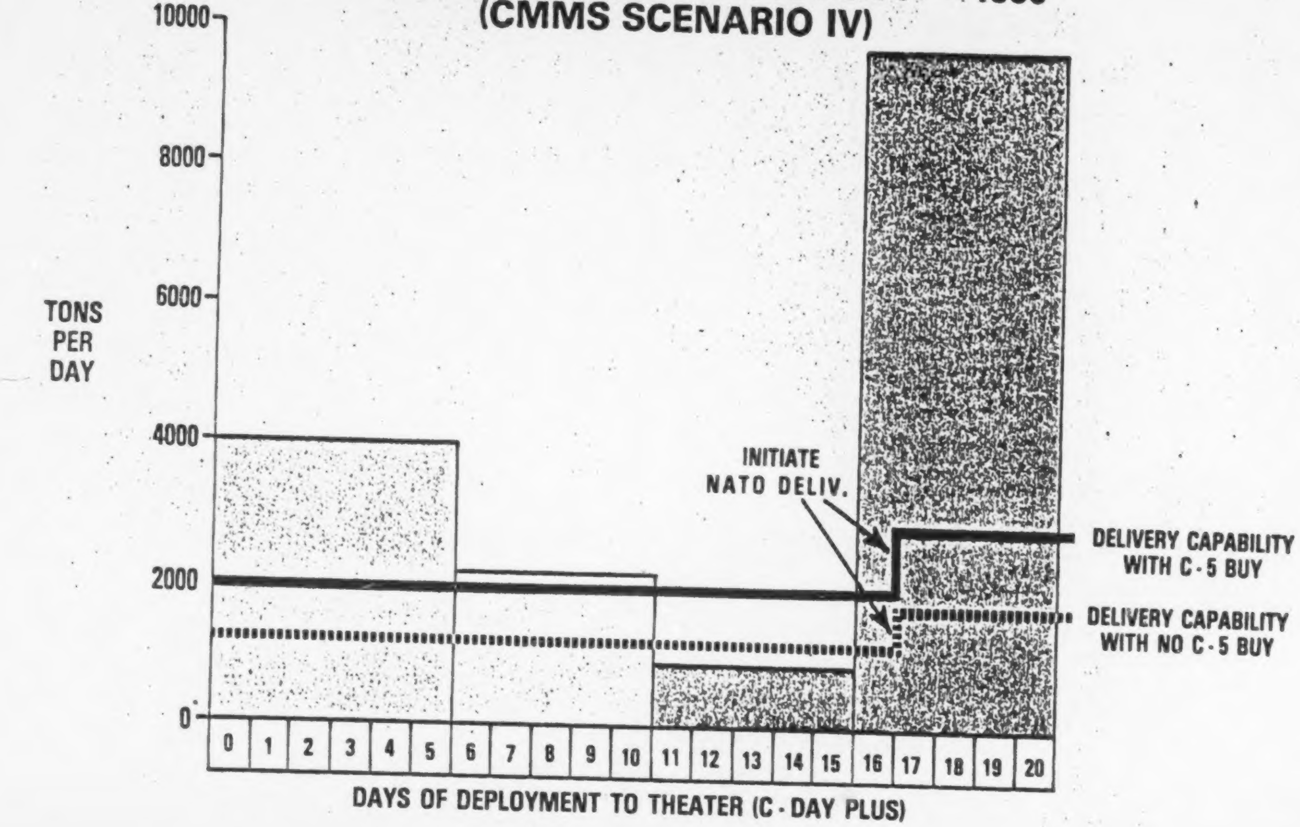
DOD OUTSIZE CARGO AIRLIFT REQUIREMENTS VS CAPABILITY – 1986 (CMMS SCENARIO II)



DOD OUTSIZE CARGO AIRLIFT REQUIREMENTS VS CAPABILITY — 1986 (CMMS SCENARIO III)



DOD OUTSIZE CARGO AIRLIFT REQUIREMENTS VS CAPABILITY — 1986 (CMMS SCENARIO IV)



OUTSIZE CARGO PERCENTAGES

Senator **Andrews**. That is fine and it is most intriguing. The only thing is it doesn't fly with the disinformation or misinformation you gave us before because we asked for outsize stuff and you come back and say [deleted] percent. You give an answer like that and it is logical to assume that you can do it with a mixed fleet.

Mr. **Carlucci**. We answered the question directly. You asked how much, and I think it was by weight——

Senator **Andrews**. No, we did not. We said what percentage of flights or cargo would be considered outsized? And outsized by our definition is the stuff that you have to have the C-5 to fit it in rather than the 747. We asked it as a direct question. We got a direct answer back from your people that said approximately [deleted] percent. Now either that answer was right or it wasn't right.

Mr. **Carlucci**. All right. If you want to pursue that line, then we don't have the capability to carry that [deleted] percent.

Senator **Andrews**. What are you going to do with your C-5's?

Mr. **Carlucci**. The C-5's do not give us the capability to carry that [deleted] percent.

Senator **Andrews**. The C-5's can't carry outsize cargo?

Mr. **Carlucci**. Yes, they can carry outsize cargo, but they can't get all that [deleted] percent to that particular scenario on time and meet the commander's needs. That is the point.

Senator **Andrews**. Well, you are going to have 77 of these C-5's, and that is not enough to carry [deleted] percent?

Mr. **Carlucci**. No, sir.

Senator **Andrews**. How are 50 more going to help you?

Mr. **Carlucci**. As I indicated, [deleted]. It is very important, for example, to get things like helicopters on scene right away and the Marine Corps so testified.

Senator **Andrews**. We talked about a 1-week deployment scenario. What percent would be outsize? The answer came back [deleted]. So we assumed that during the initial week [deleted] percent of the stuff that you wanted to run in there if asked is the outsized stuff that would need a C-5——

Mr. **Carlucci**. We would not have the capability to carry that because that [deleted] percent occupies more bulk than the [deleted] percent would represent.

Senator **Andrews**. Well, fine, but you get into some pretty interesting definitions. Let me suggest that you might expand on that one for the record.

Mr. **Carlucci**. I would be delighted to submit all kinds of materials for the record because I think this is a most serious issue.

Senator **Andrews**. Well, it is a serious issue. When we get answers like that that don't, you know, fit what you are saying now it gets intriguing.

[The information follows:]

Outsize Cargo Delivery

The amount and percentage of outsize cargo that must be delivered in the early days of a conflict, i.e., before sealift can arrive, varies among scenarios. Unfortunately, the answer provided earlier—[deleted] outsize cargo in the first week—was not based on any of the scenarios in the Congressionally-Mandated Mobility Study (CMMS), from which our airlift recommendations were derived. The table below shows the tonnage of outsize cargo (and its percentage of total tonnage) required to be delivered to the theater in the first 15 days of each CMMS scenario.

REQUIREMENTS FOR DELIVERY OF OUTSIZE CARGO TO THE THEATER IN CMMS SCENARIOS

Scenario	Cumulative through C+		
	5	10	15
I and IV—Weight of outsize cargo (KT)	24	39	40
Percent of total cargo	25	21	18
II—Weight of outsize cargo (KT)	16	18	29
Percent of total cargo	18	13	12
III—Weight of outsize cargo (KT)	4	93	128
Percent of total cargo	6	25	27

In each of these scenarios, we must depend on airlift and prepositioning for at least 15 days. The percentage (by weight) of outsize cargo ranges from 12 to 27 percent among the scenarios during that period. If the existing C-5 fleet were dedicated to moving outsize cargo, capability to move outsize cargo over the first 15 days would be about 20,000 tons compared to requirements that range between 29,000 tons and 128,000 tons. Obviously, the existing fleet cannot meet the CMMS requirements.

MISSION CAPABILITY OF C-17

Senator **Andrews**. Along the same line, if you had C-17's, would the mission capability of this task force be better served than with the C-5's?

Mr. **Carlucci**. Probably, but we can't get C-17's anywhere near the time frame that we can get C-5's.

Senator **Andrews**. Although we had a report from GAO that pointed out that the C-17's, we would get the first 42 or 48 C-17's in the same time frame we would the C-5's, given the same amount of dollar input.

Mr. **Carlucci**. That does not correspond with anything that we know of.

Senator **Andrews**. Well, again, let me put that back in the record from an old hearing and you can look at it and you can give us your answer on that.

Mr. **Carlucci**. We think there is probably a 3-year gap between the two aircraft, and we would get a larger aircraft than the C-178 sooner so you get more airlift capability.

Senator **Andrews**. We were told on the C-17, and there was also a note from the head of NASA, which has done great work in keeping in schedules, that the C-17 is within the state of the art and putting it together and getting the first unit delivered I think was in, what? In a 48-month or 60-month time table they would be right on stream with what we would do with the C-5's, and there is a GAO report that I think I put in the record in that hearing. We will dig that one out for you.

[The information follows:]

Delivery Schedules of Airlift Aircraft

At the time the decision was made to buy C-5B's and postpone C-17 development, the Congress had specifically denied fiscal year 1982 funds for the C-17 (C-X), which meant that a fiscal year 1983 start was the earliest possible start for a C-17 full scale development program. The Air Force assessment of Congressional intent was that the $50M appropriated in fiscal year 1982 for procurement of "wide-bodied cargo airlift aircraft" would allow a fiscal year 1982 start for the C-5B. This meant a 6 to 8 month earlier contract award for the C-5B vice C-17.

Air Force estimates of comparative schedules were based on several factors: (1) The McDonnell Douglas best and final contract offer; (2) discussions conducted with the McDonnell Douglas, Boeing, and Lockheed on development schedule acceleration during C-X request for proposal formulation; (3) an assessment of the Lockheed C-5B fixed price proposal; and (4) an evaluation of the time required to introduce a new system verus increasing the inventory of an existing system.

As part of the final review of the 1983 budget request, the Air Force was asked to examine alternatives for earlier delivery of airlift aircraft through increased funding. Because the C-5B program would start with an established production base (the wing modification and spares production are on-going efforts), the Air Force believed that it could be more readily accelerated than a program requiring significant RDT&E. Under the assumption that either program could be funded at the fastest prudent pace, the Air Force believed that 12 C-5Bs could be delivered up to 2 years earlier than 12 C-17s. On the delivery end of the production program the C-5Bs would be introduced directly into existing C-5A squadrons and would provide initial capability as soon as accepted. Conversely, the C-17 program called for a mini-squadron evaluation and operational test program which would last over a year from the initial deliveries. During this time period, no worldwide support system would exist for C-17.

The combination of all relevant factors meant that the 2 year difference in raw delivery schedules must be added 18 to 24 months to make a realistic comparison. The resulting comparative schedules showed a 3-to-4 year difference in C-5B and C-17 operational availability and a 2-to-3 year difference in achieving full capability.

The NASA review cited by the GAO confined itself to a general technology assessment which addressed maturity of technology, the associated technical risk, the likelihood of achieving the claimed performance, and the identification of potential problem areas requiring particular attention during development. The NASA review did not assess cost and schedule.

The C-17 delivery schedules cited by the GAO were provided to them by McDonnell Douglas. McDonnell Douglas states that if the entire C-5B funding request were made available to them, they could deliver the 12th C-17 56 months after contract award. If 10 percent of the funding request is withheld for other government costs associated with the program, they could deliver the 12th C-17 62 months after contract award.

The actual portion of C-5B budget authority allocated to flyaway costs (less engineering change order/management reserve funds) is lower than the amounts McDonnell Douglas estimates is required in the third and fourth years of their 62 month C-17 schedule. This would likely extend the delivery dates offered by Douglas. Further, delivery of the 12th C-17 does not represent the same operational capability as delivery of the 12th C-5B, since C-5Bs will go directly into operational service along with the C-5As already in the inventory.

INTERTHEATER/INTRATHEATER AIRLIFT CAPABILITY

Mr. CARLUCCI. The Air Force disagrees most strongly with that assessment.

Senator ANDREWS. Well, the Air Force are the ones that said they preferred the C-17 to the C-5.

Mr. CARLUCCI. These are not either/or, Mr. Chairman. Let me emphasize that we need intertheater airlift capability immediately. The C-5 gives us that. Now we will also need more intratheater capability, but that is not as urgent a requirement as the intertheater capability. When the C-130's and the C-141's begin to phase out in the 1990's the C-17 would make an excellent replacement. So we would have a program where we would get the C-5s now and we would continue the R&D effort on the C-17. There is nothing incompatible between the C-5 and the C-17.

Senator ANDREWS. Well, the testimony that we have gotten from GAO and others is that the gap betwen the two planes would not be 3 years. In fact, GAO did a study and said it would be at the same time. Other people say it is 1, year or so.

Mr. **Carlucci**. The Air Force just testified yesterday that it would be 3 yerars.

Senator **Andrews**. We will give that another airlift hearing.

Senator Stevens suggested a couple of questions I want to put in the record and then turn it over to Senator Schmitt.

DEFENSE GUIDANCE

A recent article in the Washington Post quotes an internal Pentagon document concerning global priorities of military readiness. Although the defense guidance outlines the force structure planning for the Persian Gulf region and NATO, I understand that this document isn't available to the committee. Why not?

Mr. **Carlucci**. This is our defense guidance, Mr. Chairman. I think the leak is most deplorable, and I would very much like to know who did it. We do not make that guidance available outside the Pentagon, even to other departments of Government.

Senator **Andrews**. Then the only way we have of getting this information is by reading it in the Washington Post——

Mr. **Carlucci**. No, sir, we would be glad to provide you with a full briefing.

Senator **Andrews**. The Post story also claims the defense guidance assumes the same forces can be used in the defense of NATO as well as the Persian Gulf. Is this true?

Mr. **Carlucci**. [Deleted.]

Senator **Andrews**. We got into this deployment when we have to go back to the other planning group to do the deploying. Your statement also asserts that forces assigned to the RDF could be used in other regions as well as your testimony just a few minutes ago. How would you deploy these forces assuming a simultaneous conflict in Africa and Southwest Asia?

Mr. **Carlucci**. Simultaneous in Africa and Southwest Asia?

Senator **Andrews**. Or Europe and Southwest Asia.

Mr. **Carlucci**. [Deleted.] Assuming we get the program we have laid out before the Congress, our medium term goal is to have the capability to deploy forces in both areas.

[Deleted.]

Senator **Andrews**. [Deleted.]

Mr. **Carlucci**. Again, it is highly scenario-dependent, but in the scenario you postulated you might have to make that choice.

Senator **Andrews**. We get back to the basic question though of how can you deploy this RDF to other regions if current planning is restricted to Southwest Asia. I am now under the impression that the planning that you have under REDCOM is inadequate to deploy this group to other areas.

Mr. **Carlucci**. The planning for other areas is being done by other CINC's. The planning for Europe is being done by CINCEUR. The planning for Southeast Asia would be done by CINCPAC. The Western Pacific would be done by CINCPAC. The planning that REDCOM is charged with includes planning for the land defense of the continental United States, disaster relief and evacuation of U.S. nationals from Africa south of the Sahara, defense of Alaska, military support of U.S. civil defense, and continuity of operations in the event of an attack on the United States.

Senator **Andrews**. Senator Schmitt.

Senator **Schmitt**. Thank you, Senator Andrews.

RAPID DEPLOYMENT CAPABILITY

Mr. Secretary, with this concentration on the theaters of Europe and Southwest Asia what is our rapid deployment capability, small "r" and small "d", in other regions of the world? Is that based on the Navy and Marine force that is in place now?

Mr. **Carlucci**. No. We would also have, as I have indicated, the capability to deploy the forces currently assigned to the RDJTF, depending on the plans of that particular CINC. But the forces themselves are in effect flexible.

Senator **Schmitt**. The information we received in the hearing that prompted this hearing was that there was very little planning or training effort being undertaken to cover other parts of the world. Southwest Asia and Europe were the two principal foci.

Mr. **Carlucci**. No, there clearly is planning in other areas of the world.

Senator **Schmitt**. Who is doing that planning? Is it these individual commands?

Mr. **Carlucci**. Yes, the individual CINCs would do the planning.

Senator **Schmitt**. Who is training the RDJTF as it is now called to be able to operate in those other areas, assuming our national interests may be threatened in those other areas?

Mr. **Carlucci**. The division commanders would have training programs assigned by the different commands, but let me ask General Dalton to elaborate.

General **Dalton**. I think much of the training is transferable.

Senator **Schmitt**. Southwest Asia is transferable to the Arctic?

General **Dalton**. But the question is, What is the likelihood of a contingency in the Arctic? I mean the people who train. For example, REDCOM does training with forces that deploy and exercise in Alaska for operations in that area. The people in the RDJTF that have the 82d Airborne Division and the 101st are obviously training them when they train them in the CONUS or take them over in an exercise to Southwest Asia for that area. Clearly organizations like the 82d Airborne Division, [deleted] are capable of fighting in Europe as well as Southwest Asia or many other parts of the world. So the forces are capable of moving and fighting in many parts of the world.

Senator **Schmitt**. Are they equipped?

General **Dalton**. In most cases they are basically equipped. I think if you sent large numbers of forces to the Arctic, I might have to take a look at that, but basically forces are equipped to fight in most places.

DESERT/JUNGLE FIGHTING EQUIPMENT

Senator **Schmitt**. What are the supplies for fighting in jungle terrain in contrast to Southwest Asia?

General DALTON. I would ask Bob Taylor to comment on that. A good bit of the equipment that would be used in Southwest Asia could be used in the jungle. It is a matter of equipment.

General TAYLOR. That is absolutely correct.

Senator SCHMITT. Are you saying desert equipment and jungle equipment are identical?

General DALTON. No. I wouldn't say they are identical.

General TAYLOR. No, they are not identical. The camouflage obviously is different and the basic uniform is different, but most of our forces have the capabilities and have that type of equipment available to them, to change the camouflage or to change the suit.

Senator SCHMITT. If you have got a MacDill based RDJTF.

General TAYLOR. That is the headquarters.

Senator SCHMITT. That is the headquarters, and you have got your units assigned to that in various other deployment positions.

General TAYLOR. They are in their normal garrison positions in the CONUS.

Senator SCHMITT. And the signal comes out we are going jungle instead of desert, they have the equipment and they make that change?

General TAYLOR. Most of them have the capability to make that change, yes, sir.

Senator SCHMITT. And if the signal goes out that it is Arctic they have that equipment?

General TAYLOR. In the Arctic I am not sure. We would have to look at that. Our specific focus right now is Southwest Asia planning, exercising, and training.

Senator SCHMITT. Well, that is what has got a lot of the members of this subcommittee concerned.

General TAYLOR. I understand that, but that does not mean——

Senator SCHMITT. There is no rapid deployment force in the sense that a year ago we were assuming we had when we dealt with these issues in the subcommittee.

General TAYLOR. Sir, that simply is not true. We have not changed the capability. I think one of the misconceptions is that we are creating some kind of a paperwork bureaucracy. That is absolutely inaccurate. This is the most austere headquarters I have been involved with——

Senator SCHMITT. Well, I don't have any problems with that. My problem is that you have got a force designed to operate in Southwest Asia only. The thinking up here, in your mind and in the mind of the Army is that that is the theater and that is the focus of our attention and we are not going to worry much about national interests threatened somewhere else. That is the message that keeps coming through as we talk to the people who are responsible.

Mr. CARLUCCI. That is not accurate.

Senator SCHMITT. It may not be accurate, but that is the impression we are getting.

MULTIMISSION CAPABILITY OF FORCES

Mr. CARLUCCI. The forces have a multimission capability. The planning for Southwest Asia has been inadequate. What we are doing in light of the national commitment that has been made and reinforced by this administration is stepping up the planning now for Southwest Asia. But that does not mean that planning does not continue for other areas of the world, and it does not mean that the troops involved are not training for multiple missions. As you are aware, all the divisions have multiple roles assigned to them and they go through training scenarios for each of these roles.

Senator ANDREWS. Senator Schmitt, it is kind of interesting when they talk about this austere headquarters. The headquarters estimated at MacDill to plan for Southwest Asia alone, as I understand, is planned to reach 967 personnel authorized by January 1, 1983. That is a far cry from an austere headquarters, and that is in addition to all of the headquarters' support for functions and the rest of the separate divisions that would be moved by this thousand man and woman planning headquarters.

Mr. CARLUCCI. In terms of CINC responsibilities that is generally not considered to be a large headquarters.

General TAYLOR. And it is unique, sir, in that it includes all the support elements because it is a mobile headquarters. It has to pick itself up, deploy, and then employ and fight its force. I would like to emphasize that it is a war fighting headquarters.

HEADQUARTERS SIZE FOR CINC

Senator ANDREWS. What is the size of a normal headquarters for a CINC?

General DALTON. It is a fairly good size. I don't have the numbers off the top of my head.

Mr. CARLUCCI. I would imagine that the CINCEUR staff would be probably several times larger.

General DALTON. There are a lot of people devoted to planning in NATO and Europe if you add them all up.

General TAYLOR. When you get into those numbers you are going to see some of them are smaller, but the difficulty with those numbers are the support elements. Those are headquarters that have been sitting in a location overseas where the support for them has developed in place, in garrison. In our case we have to take that with us. We are going to a bare base environment and we have to fight at the same time we function. That requires a unique organization.

The basic point is our country did not have that capability until we started to develop the RDJTF. We have developed a very unique and a very important war fighting capability and it has been done on a very austere basis.

Senator SCHMITT. Can that headquarters be moved anywhere else in the world?

General TAYLOR. Yes sir. It has the capability to go anywhere the National Command Authorities send it.

Senator SCHMITT. Is it prepared for Arctic, tropical, and desert conditions?

General TAYLOR. We have not made specific preparations for Arctic. Most of the equipment, as General Dalton indicated, has some transferability in its usage as far as the temperate zones are concerned.

Senator SCHMITT. Is the RDJTF a unified command?

Mr. CARLUCCI. Not yet. It will be on January 1.

Senator SCHMITT. How are you handling the multiservice roles? Does each position have a member from each service?

Mr. CARLUCCI. I will let General Taylor answer that.

General TAYLOR. Absolutely not. It is an integrated four-service headquarters. Again that is a unique thing we have not had before that is so important to our country. One-third of our people are Air Force, one-third Army, and one-third Marine and Navy, and they are integrated throughout the staff. We have the specific capabilities, expertise to guide our planning and to make sure that we have the forces identified correctly for the mission, whatever it is. We have figured out how to pull the total capability of the United States together and make it effective. Gentlemen, that is the important part.

Senator SCHMITT. Will you provide for our record the relative emphasis within that headquarters on planning for Southwest Asia versus other specific regions of the world? I assume right now it is all Southwest Asia.

Mr. CARLUCCI. If you are talking about planning, it is all Southwest Asia right now. What I have said in my testimony is that that does not preclude us, once we get that planning completed, from getting another assignment. The planning for other areas, once again, is done by other commands.

Senator SCHMITT. Yes, but this command is not integrated with those other commands.

Mr. CARLUCCI. CINCPAC is not integrated with CINCEUR either, but they both have planning responsibilities.

Senator SCHMITT. But they have assigned troops and equipment. This is a group you are planning to move anywhere, and it seems to me that if they are going to move into CINCPAC's area that there would be some coordination going on now with a potential of having to do that.

Mr. CARLUCCI. There is, but once again you have to make a distinction between the headquarters planning and command and control function and the divisions themselves. The divisions, if they went to Europe or to a CINCPAC theater, would be chopped to those respective CINC's. They might take some of that headquarters capability with them or they might not, depending on the circumstances.

Senator SCHMITT. So this headquarters then, its primary mission is to move into Southwest Asia. In contrast to what you said a moment ago, it would probably not pick up and move into Southwest Asia. In contrast to what you said a moment ago, it would probably not pick up and move into some other command region.

Mr. CARLUCCI. Probably not, but we wouldn't preclude that possibility. It has the capability.

Senator SCHMITT. You plan to have the capability to do that. You have indicated to me it doesn't yet have it because you haven't planned those kinds of operations.

General TAYLOR. But they have put together a plan, Senator. If, for instance, a piece of my war fighting headquarters were needed for a small, say, one-division type engagement somewhere to work for another CINC, I could take a piece, which is my command and control element, to control that, go over and fall in on that unified commander's plan and work for him. We could utilize his planning and we could execute it. It is a very important capability. When we say we have the capability to go to other places that is what we mean.

It is also one of the reasons for the very large number as we have transitioned to a unified command. We will pick up unified command responsibilities for Southwest Asia, but at the same time we will retain this capability if required to go wherever we are needed.

Senator SCHMITT. Will REDCOM continue to exist?

Mr. CARLUCCI. Yes, sir.

DUPLICATION OF EFFORTS BETWEEN RDJTF AND REDCOM

Senator SCHMITT. Is there any duplication between RDJTF and REDCOM?

Mr. CARLUCCI. No sir, REDCOM functions are not being picked up by RDJTF. I think it is important to understand that RDJTF is basically picking up a function that hadn't been conducted before. There had been some planning for Southwest Asia but nowhere near the intensity to meet the commitment that this country undertook in 1979. We are not duplicating any functions. We are adding a new capability.

REDCOM essentially has the responsibility to provide reinforcements to other CINC's around the world and to develop doctrine for joint exercises. It has a responsibility for the continental defense of the United States and Canada, disaster relief and the planning capability for areas of the world that are not covered by the CINC's—such as Africa south of the Sahara, and Alaska.

Senator ANDREWS. Senator, if I might. Essentially you have got REDCOM and you have got 500 people in REDCOM or thereabouts. If an emergency came up in some other part of the world, those 500 people in REDCOM would tell the thousand people in RDJTF how to go to some other part of the world so you would have all kinds of command people moving some of the divisions that hopefully are ready to move.

Mr. CARLUCCI. That is not the way it works, Mr. Chairman. First of all, there are about 360 people in REDCOM. REDCOM would have the responsibility for providing the reinforcement.

Senator ANDREWS. Well, we were told that there were 614 in REDCOM on May 12, 1982.

Mr. CARLUCCI. That may include the Joint Deployment Agency.

Senator ANDREWS. The figure 614 reflects the fiscal year 1982 manpower authorization for REDCOM, headquarters U.S. REDCOM.

Mr. CARLUCCI. That probably includes the Joint Deployment Agency. What we have submitted in the budget is 361 for REDCOM. The Joint Deployment Agency has 168.

Senator ANDREWS. So we could pick any number we really want. We get a choice from you. It can be 300 or it can be 614.

Mr. CARLUCCI. No sir, they are different organizations, although the Commander of REDCOM wears a dual hat. He is Director of the Joint Deployment Agency as well as Commander of REDCOM, but they are separate organizations although some of the people in both organizations are dual hatted.

C-5 LANDING CAPABILITY ON ASCENSION ISLAND

Senator **Andrews**. Well, let's say that REDCOM decides that we have a problem in the Falklands because the British are getting into a problem in the Falklands and we are going to go down and we are going to—what is the island, Ascension Island, that they were servicing that island. Now let's say you load a bunch of stuff into those C-5's and run them down to Ascension Island. Can the C-5 land on that strip of Ascension Island?

Mr. **Carlucci**. I don't know off the top of my head. I would assume it can.

General **Dalton**. I am pretty sure it can.

Senator **Andrews**. You are pretty sure it can?

General **Dalton**. They get 141's in there, and the C-5 ought to be able to handle it.

Senator **Andrews**. The information the committee had is that the C-5 couldn't land. The information the committee has is that the Brits wanted some stuff down there on Ascension Island and we would have liked to have brought it down there for them and we couldn't because these wonderful C-5's couldn't land.

Now if you are going to project a force some place in the world, the force projection area right now is the Falkland Islands.

Mr. **Carlucci**. We will have to submit something for the record on that. But one thing is certain: If the C-5 couldn't land, the 747 couldn't land either.

[The information follows:]

Project Force Some Place in World

The C-5 has demonstrated the capability to land on Ascension Island. However, due to the severe congestion on the Island caused by numerous British Nimrod, Vulcan, C-130 and other aircraft, the Air Force used C141's. The presence of U.S. aircraft on the field had no bearing on the type of aircraft used.

REDCOM ACTIVITIES

Senator **Andrews**. What about the C-17?

Mr. **Carlucci**. We would have to wait until about 1989.

To go back to your question, those decisions wouldn't be made by REDCOM. REDCOM would have nothing to do with those decisions. That would be the National Command Authorities, undoubtedly starting with the President.

Senator **Andrews**. Then what does REDCOM do? The National Command Authority would flow to RDJTF.

Mr. **Carlucci**. No; the National Command Authorities in this case would task CINCLANT. It would be the Atlantic Commander who would have responsibility for the Falkland Islands and Ascension Island.

Senator **Andrews**. Fine. So then you would go to CINCLANT and then you would go direct to the units. You wouldn't go through either the thousand people in RDJTF or the 600 people in REDCOM. So all of those planners and all those headquarters folks would be by-passed to respond to something in the Atlantic which is where we have——

Mr. **Carlucci**. Because they are not doing the planning for the Atlantic. CINCLANT is doing the planning for the Atlantic. He might draw some of the forces currently assigned to the RDJTF such as the 82d Airborne.

Senator ANDREWS. Well, that is the question that the committee has, which is what constitutes this planning, and again and again your answer comes back that the planning is totally devoted to the unique characteristics of one region of the world. You might normally expect that the planning was devoted to such things as how to interface these different divisions, how you get them into the planes and how you set up your communications.

Mr. CARLUCCI. It is.

Senator ANDREWS. But you are saying that none of that is operative. If we have an emergency in the Atlantic, we go through CINCLANT and we don't do anything with either REDCOM nor RDJTF.

Mr. CARLUCCI. REDCOM provides the reinforcement and the planning for the logistical departures from the United States, and they obviously have to interface—in this case with CINCLANT. CINCLANT has the basic responsibility. I think the Falklands illustrates the case very dramatically. Knowing what the terrain is in the Falklands, what the climate is, what kind of operations you can conduct, and what would be the best tactics to deal with the Falklands, they would call on REDCOM for reinforcement. Let me ask General Dalton to elaborate.

General DALTON. CINCLANT has two component commanders, in addition to his own component hat as CINCLANTFLT. He has an ARLANT which is Forces Command and he has an AFLANT which is TAC at Langley. If he had a plan for the Falklands or if he were told to plan for the Falklands, he would be concerned about planning for that. But having worked that plan and having called upon the same reserve of forces that we have in this country, whether we reinforce Europe or Southwest Asia or anywhere else—and we are force limited—those same forces would be available. If it were clear that we needed some elements from the RDJTF or something else to carry out the mission, I think that is the bottom line. What does it take to carry out the mission?

To make it clearer, the Unified Command Plan is not rigid. It does not prevent us from moving forces around or allowing CINC's to operate in other people's areas. But initially it would be in CINCLANT's area of responsibility.

Senator SCHMITT. Is the REDCOM then the sort of coordinating force, to hear from one command and try to find the units they need?

General DALTON. He is in charge of that reserve, to plan their deployment reinforcement and to exercise them back here. REDCOM in essence supports a lot of people. Its responsibilities for planning and for contingencies, as the Secretary said, are for those areas not planned by other people.

Senator SCHMITT. Mr. Chairman, if I may, one more question, and then I am going to have to run. [Deleted.]

Mr. CARLUCCI. [Deleted.]

Mr. SCHMITT. Now if the RDJTF were operational at this point and this situation had developed, would they be in charge of doing that?

Mr. CARLUCCI. No; they are operational, by the way. They have the capability to go over there if directed. No, command arrangement in the Mediterranean would continue to come under CINCEUR.

Senator SCHMITT. Don't you anticipate there might be problems in this situation?

Mr. CARLUCCI. There are always problems in the interface between any unified commands. There are problems in the interface between CINCPAC and CINCEUR, but those problems are worked out through constant communication and effective liaison, and the RDJTF would conduct such——

Senator SCHMITT. But you would not expect the RDJTF to take on this level of problems. If directed by the President to move forces into Southwest Asia, then RDJTF would take over?

Mr. CARLUCCI. Yes.

Senator SCHMITT. Anything less than that is the responsibility of other forces.

Mr. CARLUCCI. Anything on water would be the responsibility of other commands at this point. If you are talking about the Indian Ocean or the Mediterranean, they are the responsibility of CINCPAC and CINCEUR, respectively.

Senator SCHMITT. What if the there was a hostage crisis again in a land-base situation, would it be RDJTF's responsibility to take whatever military action might be deemed necessary by the President?

Mr. CARLUCCI. There is an example of the flexibility that General Dalton was talking about. You could designate the RDJTF. You could set up a separate group. [Deleted.] There are a number of ways you could do that. You could plan it directly through the JCS.

Senator SCHMITT. But the main function of the Rapid Deployment Joint Task Force is to deal in larger scenarios——

Mr. CARLUCCI. The main function, as I indicated in my testimony——

Senator SCHMITT. They are not thinking in terms of these small kinds of problems.

Mr. CARLUCCI. No. [Deleted.] The main planning function of the RDJTF is to deter a Soviet invasion of Southwest Asia.

RESPONSIBILITIES OF THEATER FORCES

Senator SCHMITT. Don't you think it would be logical to assume though that if this is in fact a theater force that they would have those kinds of responsibilities? Other theater forces or theater areas have those kinds of responsibilities.

Mr. CARLUCCI. [Deleted.]

Senator SCHMITT. But we are talking about a threshold here, and there is a threshold below which you have indicated the RDJTF would not normally be expected to operate and would not normally be expected to have planned on; is that correct? Whereas in Europe or the Pacific or somewhere I believe that the theater implies that they would——

Mr. CARLUCCI. No, no. If you were to take the [deleted] capability and put it in Europe or in CINCPAC's area, it would be chopped to the operational command responsibility of that CINC, and the same would apply in Southwest Asia after the RDJTF becomes a unified command.

General **Dalton**. I think maybe the point is that if the RDJTF becomes the unified command of Southwest Asia, in addition to its operational planning functions, it would plan for other contingencies, evacuation of people, disaster relief and other things, the normal things that CINC's do in addition to their wartime planning. These are additional responsibilities. They would have that capability as a unified command.

Mr. **Carlucci**. They would also have the monitoring responsibility for security assistance.

General **Dalton**. That is right, and they would interface with the embassies.

Senator **Schmitt**. Thank you, Mr. Secretary.

Mr. Chairman, I still have some concerns that we do not have the planning in place, or the emphasis at least in place to handle rapid deployment situations outside of Southwest Asia. I just hope that the Navy and the Marines and the other commands in the various theaters are doing their homework to be ready to do something if we have to do something. I don't think Southwest Asia is the only place that we really have to be concerned about these kinds of activities.

Mr. **Carlucci**. [Deleted.] We aren't neglecting other areas of the world. Other CINC's have responsibility for planning for those areas and the divisions themselves are flexible.

Senator **Schmitt**. But are they getting the equipment and the training necessary in order to operate in the rapid deployment mode? I think that the Navy and the Marines are, but if they needed paratroopers to move in with them in various other areas I am not sure that that kind of coordination is now taking place.

Mr. **Carlucci**. I think if you took the 82d Airborne you would find that they have a very substantial capability.

Senator **Schmitt**. I am not saying they don't have the capability, but are they integrated in a rapid deployment plan with naval and Marine forces wherever that situation may develop? That is my concern. What I am talking about is rather than theater, is the concept of strategic mobility throughout the globe and not just strategic mobility for a particular theater, and they are two different things.

Mr. **Carlucci**. But we have divided the globe up into theaters with planning responsibilities assigned to commanders for those theaters. Those commanders then link up through REDCOM, as we discussed earlier, with the forces that would be made available to them, and the forces have the flexibility to fit into a wide variety of plans.

Senator **Schmitt**. Well, that may be true on paper, but I am just wondering how we are doing in practice.

General **Dalton**. The answer is the reason we run exercises in Europe and in the Pacific as well as in Southwest Asia is—to take the Forces over there so they can operate in the terrain and the places under the command that they are going to report to. Of course that is a reasonably expensive proposition but you need to do it periodically and deploy the Forces.

Senator SCHMITT. Mr. Secretary, last year when we went through this I think the committee, almost to a person, came away with a very warm feeling in talking with the Navy and the Marines that we were on track, that we were on track for a real rapid deployment force. The integration planning was taking place, the equipment was there, the exercises were being run and we felt pretty good that we were developing a rapid deployment force.

This year somehow we have lost that warm feeling and I haven't quite been able to put my finger on it. Where we lost it the first time was in the Army and Air Force discussion last year about what we thought was the same thing and suddenly we discovered it doesn't seem to be that, that we have gone away from rapid deployment in a global sense to rapid deployment in a theater sense, and that has gotten us concerned. You have got to be patient with us while we learn and figure out what in the world you are doing this year in contrast to what we thought you were doing last year.

Mr. CARLUCCI. We would like to make you comfortable again, Senator. We can assure you that we still have that capability. But, as I have indicated, [deleted].

Senator SCHMITT. It may be that part of the problem is what Senator Stevens and others have indicated, which is we didn't realize that this administration I guess was in a sense willing to go it alone in Southwest Asia, and that the diplomatic efforts necessary to try to insure that we have theater support from our allies did not seem to be as advanced as we would like to see for the level of policy commitment that seems to be made to Southwest Asia.

Mr. CARLUCCI. Senator Schmitt, let me emphasize that we are not adopting a go-it-alone thesis with regard to Southwest Asia. Indeed, just 3 months after this administration came into office I gave a speech at Wehrkunde which emphasized the importance of Europeans participating in Southwest Asia.

EUROPEAN PARTICIPATION IN SOUTHWEST ASIA

Senator SCHMITT. But are they participating? Do we have any commitments?

Mr. CARLUCCI. We are making some progress. As you are aware, the French and British have a substantial naval presence. They also have a land presence at Djibouti. The British have had a naval presence. They have substantial influence in places like Oman. We have cooperated closely with them. So there is considerable capability.

Senator SCHMITT. Frankly, Mr. Chairman, the only reason I thought that we had reasonable capability in Southwest Asia up until recent events was [deleted].

Mr. CARLUCCI. [Deleted.]

Senator SCHMITT. [Deleted.]

Mr. CARLUCCI. [Deleted.]

Senator SCHMITT. I am not asking you to make a statement one way or the other, but I am trying to look at the reality of it. Those kinds of alliances can shift on very unstable sands, depending on——

Mr. CARLUCCI. Any kind of alliance can shift rapidly, Senator. I was in a NATO country when it almost went Communist. This is part of the changing world, and we have to have the flexibility in our structure to cope with it.

Senator ANDREWS. But what does this subcommittee have to look at when you say that you are making all kinds of gains in this kind of attitude toward us by our allies over there? This is not the Washington Post. This is the early bird edition of the current news from the Department of the Air Force and the Department of Defense. It includes in it an article from the Washington Post, but certainly it is put out by the Department of the Air Force.

It points out that Cap Weinberger was there and made a speech in Saudi Arabia telling about the President earmarking money for U.S. forces that would race to this region to save oil supplies that Western nations depend on.

On down in the article it says that "Keep out, pleaded one Saudi General," in talking about the Rapid Deployment Force. "If you come in, then you will give the Soviets an excuse to come in."

Mr. CARLUCCI. That is the Washington Post, and I guess any journalist can speak to any general anywhere in the world and find a critical comment. That is quite obviously what the journalist did in that case.

Senator ANDREWS. It is a news clip in the Air Force News.

Mr. CARLUCCI. Yes, but it is taken from the Washington Post.

Senator ANDREWS. But the point is you must have thought it was accurate or you wouldn't have put that out——

Mr. CARLUCCI. No, sir. Our news clips include every piece of possible interest: critical, accurate and inaccurate. [Laughter.]

Senator ANDREWS. We thought you were giving it approbation.

Mr. CARLUCCI. No, not at all. My God, if those news clips denote approval—[Laughter.]

Senator ANDREWS. Well, let me get into a couple of quick questions and then we can conclude the hearing. We have got a number of other questions we will submit for the record and we ask you of course to supply some additional information on some of the discussions we got into.

Senator Schmitt raised the point about desert warfare, what we would do if we had a situation such as the hostage case again. What are we doing about the anticipated problems with the adverse effect that heat and sand have on machines like helicopters and generators?

Mr. CARLUCCI. That is one of the reasons why we want the Apache Helicopter—the AH-64—because that has the capability to operate in high temperatures. Subsequent to the vote in the Senate Armed Services Subcommittee we have been able to get the price of that helicopter down. So I think it is very important in conference that we go ahead with the funding of the AH-64.

You will see—and I am prepared to submit it for the record.

[The information follows:]

RDJTF SUPPORT

There is about $528 million worth of SWA-specific support funded for the FY 83-87 period. This is support which we would probably not be buying if we did not plan to carry out a SWA strategy. Most of these funds are for upgrading Army combat service support units ($296M) and water support equipment ($171M), with the remainder being for POL equipment ($61M).

Additionally, we currently plan to spend some $290 million to upgrade further Army CSS and water support units and another $600 million to procure 2½-ton trucks. These latter two programs we refer to as SWA-related (vice SWA-specific) since, although they will be used primarily in SWA, they are needed to enhance our support posture in general.

FUNDING FOR SUPPORT EQUIPMENT

Mr. **Carlucci**. In the cost breakdown that we have that we are asking for funds for such things as water support equipment and various support equipment. But let me ask General Taylor to elaborate on that.

General **Taylor**. We have had three exercises in Southwest Asia and one in the western desert of the United States. The results of that activity have been picked up by the appropriate Service and are reflected in the POM submissions to correct difficulties with the equipment. Several are fixes to helicopters but they go basically across the board where we need improved filter systems, different types of lubricants and all those things that we have learned from our involvement in Southwest Asia.

Senator **Andrews**. Sometime ago when the last Carter budget was submitted, former Secretary Brown estimated the total RDF program cost $17.4 billion. What is the Rapid Deployment Force cost projections in your budget?

Mr. **Carlucci**. If you take the 5-year program and just take discrete items—that is, items you would do without if you didn't have the Rapid Deployment Force—is it about [deleted]. If you take items that have applicability elsewhere, such as communications, strategic airlift and rapid sealift, you are talking about something on the order of [deleted].

Senator **Andrews**. So in essence we are being asked to put [deleted] into a military budget to protect our access to the oil that is in——

Mr. **Carlucci**. Over a 5-year time frame to, inter alia, protect our access to Southwest Asia. It also gives us SL–7 rapid sealift. It gives us the capability to reinforce Europe as well, and it would give us capability down in the Falklands.

Senator **Andrews**. But we are asking for this essentially targeting in on one area, Southwest Asia.

Mr. **Carlucci**. No, that is the problem we have with trying to break out costs. If you are asking for discrete costs over the 5-year time frame, that [deleted] figure is the one that you are referring to. That is what you are paying for, that discrete capability in Southwest Asia. Everything else that you are buying gives you capability elsewhere in the world as well.

Senator **Andrews**. Actually behind that [deleted] is the cost of course of the divisions, the manpower and the——

Mr. **Carlucci**. No, we did not include those.

Senator **Andrews**. But I mean behind that is all of these other things that have to be moved. In essence, if we had to move into Southwest Asia you have got about $25 billion worth of budget that would manifest itself in the total overall force that would move into that part of the area if we decided to move into that part of the area which is a pretty good chunk of dough.

Mr. CARLUCCI. The figures that I gave you are from a 5-year time frame and would once again be dependent on the scenario. They would depend on how long you would sustain that force in the region. They are costs that we would have anyway.

Senator ANDREWS. But you are talking about a force that is going to go in there to counterbalance to Soviets ground force moving in there, and that is certainly going to take 20 percent or so of the assests, shall we say, the military assets of our country in any given fiscal year which is well over $25 or 30 billion.

RDF BUDGET REQUEST

Mr. CARLUCCI. That is right.

Senator ANDREWS. How did you derive the $4 billion figure that Secretary Weinberger stated was requested in the fiscal 1983 budget for RDF?

Mr. CARLUCCI. Once again I take it this is coming from the Washington Post.

Senator ANDREWS. Oh, heck, no. This is coming from a staff question that is put here that the subcommittee wants the answer. Secretary Weinberger stated that $4 billion is requested in the fiscal 1983 budget for RDF. Now I assume he requested that and I assume that he mentioned that in——

Mr. CARLUCCI. Here is the actural breakdown of the figures that I gave you: If you are talking about 1983, you are talking about 737 million in Southwest Asia specific items and about 1.7 billion in other items that would be used in Southwest Asia but could be used elsewhere in the world.

Senator ANDREWS. Well then where did the Secretary get the $4 billion figure that he puts into his speeches for fiscal 1983 that comes back into the Fargo Forum in my State and then my people pick up the phone and say how come the administration is spending $4 billion to project itself to protect other people as well when they won't spend a nickel to develop our own energy supplies here at home.

Mr. CARLUCCI. I will see that that figure is lowered, Mr. Chairman. Actually, if you add the two figures that I have given you, you come up with $2.4 billion.

Senator ANDREWS. It is interesting. It is also clear that the RDF is the prime reason for expanding airlift and sealift capacity.

Mr. CARLUCCI. No, it isn't.

Senator ANDREWS. It isn't?

Mr. CARLUCCI. No, sir. One of the four scenarios in the congressionally mandated mobility study is a straight reinforcement of NATO. [Deleted.] Yes, we do need a lot more capability, as the mobility study shows, to handle the scenario in Southwest Asia. The other three scenarios are Southwest Asia—oriented, but it is not exclusively Southwest Asia that drives this need.

Senator ANDREWS. In other words, you are telling us [deleted].

Mr. CARLUCCI. That is correct.

U.S. TROOPS IN EUROPEAN THEATER

Senator ANDREWS. And we have how many troops in Europe right now, 350,000.

Mr. **Carlucci**. 337,000.

Senator **Andrews**. [Deleted.]

Mr. **Carlucci**. [Deleted] and all of that is provided for in the budget.

Senator **Andrews**. We understand that, but given the problems with the administration and the conversations we have had with Cap Weinberger, the President hasn't taken the action to get the interests rates down and we have got to make the cuts to make those outyear deficits a little better and we are going to have to find spots to cut in the defense request. It is as simple as that. You know, we are looking now for the spots to cut that are the ones that are the most justifiable. We don't have the money. If we had we would be in a lot better shape. But the President, and Mr. Weinberger has been told this by members of this subcommittee and by those of us who also wear the hat of the Budget Committee, that unless he began to move along the lines of doing something about entitlements the only place we had to cut was in the defense budget and in some of the other appropriations. We just don't have any choice.

So the matter is pretty serious and perhaps we could find ways of eliminating it. In the case of NATO the chairman of this subcommittee has made the point a number of times that maybe we ought to bring some troops back.

I have made the point in debate on the floor and in the budget resolution amendment by Senator Kassebaum, which I supported, that quite possibly we could have the Germans pick up the position of using our materiel that is there and moving in and be the additional troops from their reserve units. I don't know where we are going to go, but we are going to have to find some logical answers in cutting some of this darn budget because we frankly don't have any choice.

Mr. **Carlucci**. Mr. Chairman, you don't save any money by withdrawing troops from Europe because we have to build facilities for them in this country and we would have to add to our rapid sealift and our capability to get them back.

Senator **Andrews**. Well, some of us feel that if we move some of the equipment and the rest of our Guard groups and our Reserve groups, they are there and they are ready, and they outshoot the Air Force most of the time anyway when we get into any kind of drills and the rest. You keep them with 20-year-old airplanes and the rest and instead of adding more units to the regular Air Force and instead of adding more units to the regular Army, if we stood down some of the forces of NATO or if we include some other arrangements and transferred some of those assets into the Guard and the Reserves, I think we would probably be just as well off.

Mr. **Carlucci**. You still could not meet your [deleted] commitment to NATO even if you put them in the Reserve without additional airlift and sealift because you would have more of a vacuum to fill.

Senator **Andrews**. Some of us are not so sure that we need that [deleted] commitment and some of us are getting a little fed up with the whole European attitude toward NATO and the rest and some of us are beginning to realize that if you had the Mansfield resolution on the floor of the Senate today it would probably pass.

Mr. CARLUCCI. I think that would be a very serious mistake, Mr. Chairman. I think we have to view NATO as not a favor we are doing Europe but as something that is in our interest as well.

Senator ANDREWS. That is what we keep hearing, but we try to develop a record on how it goes and we have to find the spot to cut, and you are it since the administration that you are a part of says that we can't cut entitlements.

Mr. CARLUCCI. The administration also says that we can't cut defense.

Senator ANDREWS. Sure, but the administration sits and looks at an outyear deficit of $240 billion in fiscal 1985 and our people keep looking at 16.5-percent interest rates and there ain't no way you are going to keep going on 16.5-percent interest rates by pointing back and saying Jimmy Carter had 21-percent interest rates. That is what the White House is offering us, which is pretty thin pablum as far as an answer to why they are not being more responsive to getting interest rates lower.

We understand from all the economists that have testified before the Budget Committee that the only way we can get interest rates down is to lower those outyear deficits. And when you are looking at ways of lowering the outyear deficits you are one of the principal ways.

Now I hope you carry the message back to Cap and to the group in the White House that they are giving us less and less alternative when we mark up this bill than to try to give us the leeway to do what needs to be done.

Mr. CARLUCCI. All I can say in response, Mr. Chairman, is that if you are talking about cutting defense substantially, you are talking about revamping our commitments. You are talking about revamping our foreign policy and taking an entirely different approach.

Be honest about it. If you are going to cut defense, cut our capability, and cut our force structure, say that we are going to have to have a foreign policy which is more accommodating and the Soviets are going to have the capability to blackmail us in the mid-1980's.

Senator ANDREWS. Well, I don't know how you are doing it, but I have been voting on defense appropriations for some 18 or 19 years, and I think up until about a year ago, and I hope you are aware of where this is coming from, that I probably had a 100-percent voting record with the American Security Council, or whatever those groups are called, on prodefense votes.

So when you start getting Senators like this one, and Senator Stevens and others saying that we ought to start cutting back on NATO and some of the other things, you have got to realize that the administration has gotten us into a pretty darn serious box where we are reevaluating voting habits and support that we have given over in my case almost two decades. The answers that we have gotten from hearing after hearing after hearing, and this is the third one I have participated in on this whole Rapid Deployment Joint Task Force business, you have been up and down the flagpole in so many darn different directions that you just can't sort your way through it.

The staff is going to try to pull out some answers for us. The staff is going to try to coordinate things. We have heard a dozen different answers on a host of different other parts of the defense budget as well. I am concerned, and I know our chairman, Senator Stevens, is concerned, and I would assume that a number of the Members on the other side of the political aisle are similarly concerned.

I hope that the message that you will convey back to Secretary Weinberger, who is a most confident guy and a great old-time friend, is that we don't have many alternatives here. We are concerned and we do hope that we can get some better and more solid answers.

Mr. CARLUCCI. We would be glad to try and clear up any discrepancies that may exist in testimony although I am not aware of any.

SUBMITTED QUESTIONS

Senator ANDREWS. We will submit a number of questions to you for the record.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

ADDITIONAL COMMITTEE QUESTIONS

QUESTION: Mr, Secretary, can you describe the circumstances under which the RDF would deploy?

ANSWER: The RDF would deploy when tasked by the NCA to protect US interests in the region. Examples of the threats which could precipitate such action

Deployment Scenarios

QUESTION: Information provided for the record states that for the first four weeks of a deployment, personnel and material will be airlifted exclusively. This factor alone dictates in the event of conflict concurrent operations in Europe and in Southwest Asia would be almost impossible to support. Is this a fair assessment?

ANSWER: First, during the first (d) weeks of a deployment to Southwest Asia, forces and suppies that arrive from CONUS will most likely have been carried by airlift. However, the bulk of the follow-on units will have at least begun their deployment via sealift. For Europe, sealifted forces could be arriving within the first (d) weeks. When our fast sealift programs become realities, they will deliver forces to SWA within (d) weeks and (d) weeks to Europe. Regardless, it is a fair assessment to say that attempting to support concurrent deployments to Europe and Southwest Asia would be (d) difficult. Consequently, given current and programmed force structure and force projection capabilities, priorities must be established and forces employed accordingly. This does not mean in peacetime that we should buy forces exclusively for the higher priority theater. We desire to deter conflict in both theaters.

QUESTION: What are the total costs of expanding our airlift and sealift capabilities, and to what extent are these expansions tied to RDF requirements?

ANSWER: For FY 1983-87 we expect to spend about $12B to expand our airlift capability and about $2B to enhance our sealift. These much-needed improvements will enhance our ability to project forces to all theaters worldwide. Since we have only a limited presence in Southwest Asia, the RDF is especially dependent upon adequate mobility capability to project forces into the region as quickly as possible, but we do not consider these mobility improvements to be unique to RDF requirements.

QUESTION: What is the projected annual cost of maintaining this expanded airlift-sealift capability in operational readiness?

ANSWER: The projected annual operating and support costs for the additional airlift (C-5Bs, KC-10s) and sealift (SL-7s, sealift discharge) will amount to about $800M after all aircraft are delivered.

QUESTION: We understand there are (d) basic scenarios for which the RDF is planning [deleted]. Please describe the strategies which would be employed under each scenario.

ANSWER: [Deleted.] Our peacetime strategy is to maintain a credible presence in the region, expand access to and improve regional facilities, assist regional states to meet their defensive requirements and conduct regional exercises. [Deleted.]

For lesser conflicts, our strategy seeks to assist countries to defend themselves and is based on the premise that each nation bears primary responsibility for its own defense.

QUESTION: In the event of conflict, are you assuming cooperation from Persian Gulf government?

ANSWER: [Deleted.]

EQUIPMENT STAGING

QUESTION: Please describe the arrangements which have been made with other Persian Gulf states for staging equipment.

ANSWER: We have three formal signed agreements with nations in the SWA area: Oman, Kenya and Somalia. In general, these agreements include provisions for visitation, support, supply, storage, transit, exercises, and staging equipment. We also have an understanding with Egypt allowing us the use of facilities, [deleted]. We have considerable amounts of equipment staged at Diego Garcia under an agreement signed in 1966 by the UK and the US and expanded upon in 1972 and 1976 agreements.

PERSIAN GULF STATES USE OF ARMED FORCES

QUESTION: Are there any circumstances in which Persian Gulf states would provide armed forces in any RDF deployment?

ANSWER: Certainly one can hypothesize circumstances where Persian Gulf states would provide armed forces to work in the closest of relationships with an RDF deployment to the region. However, we are emphasizing to the Persian Gulf states the need for them to become fully aware of the potential threats to their security and the need for them to develop indigenous forces to provide for their own defense. [Deleted.]

IRANIAN REACTION

QUESTION: Although General Kingston testified recently that host nation support is not assumed in (d) in the recent Gallant Eagle 82 exercise some level of cooperation was assumed for logistics and support requirements. Is there any reason to believe that the [deleted] would be anything but hostile to both Soviet and US forces in the event of conflict?

ANSWER: [Deleted.]

ALLIED PRESENCE

QUESTION: Mr. Secretary, you mentioned in your statement that the British and French have a military presence in the Southwest Asia region. Specifically, what is their objective? Would they support or deploy with RDF forces?

ANSWER: Their objective is unknown and it would be presumptuous to speculate upon it. However, it seems prudent to believe they are there to protect their own vital interests. They have a long history of private and public, political, economic and military connections with many nations in the area. [Deleted.]

BURDEN SHARING

QUESTION: Certainly our greatest concern in this region is to deter Soviet control of Persian Gulf oil. But in this regard, the Europeans and Japanese are more dependent on this resource than the US. Why shouldn't they bear the greater burden of Allied involvement in this region?

ANSWER: The most challenging, although least likely, threat in the region is that of an attack by the Soviet Union. The Soviet Union is a military superpower with capabilities that can be deterred or defeated only by the United States as an equal military superpower. Where the allies have some military presence in the region, we support it. But, for the most part, we have adopted an approach wherein the Allies can take up a greater share of the defense burden in their own regions and relieve US forces so that they could deploy to SWA if it became necessary to deter or defeat Soviet aggression.

ALLIED COMBAT SUPPORT FORCES

QUESTION: We understand that the Allies have combat support forces that could be available in support of the US in this region. Under what circumstances can this support be expected?

ANSWER: We have no information that the allies [deleted]. However, there is a study underway in NATO to examine the possibilities of our NATO Allies providing combat support and combat service support forces under the command of SACEUR in support of US reinforcements for NATO. These allied support forces would substitute for US support forces diverted from NATO reinforcement to a RDF deployment.

SECURITY & ECONOMIC ASSISTANCE BY NATO ALLIES TO SOUTHWEST ASIA

QUESTION: You also mentioned the Allies are providing security and economic assistance to Southwest Asia countries. Please give us some specifics.

ANSWER: Our NATO allies provide considerable security assistance to Southwest Asia countries. In most cases, military sales predominate over aid. Below are figures for foreign military deliveries from our NATO allies last year to some key regional states (the values are in millions of US dollars, and the major donor is shown in parentheses):

(deleted)---------------------------(deleted)

The value of overall security assistance contained in major agreements reached during 1978-1980 between some of our allies [deleted] and Southwest Asia countries totaled more than [deleted] (the values shown below are in millions of US dollars, and the major recipients are given in parentheses):

(deleted)----------------------------(deleted)

In addition to arms sales and aid, other security relationships exist between our allies and Southwest Asia countries that enhance the security of individual states and of the region as a whole. [Deleted.]

Economic assistance to countries in the general Southwest Asia area from our NATO allies supplements security assistance as a means of stabilizing the region and protecting our common interests there. Below are figures for economic aid disbursements made by major allied donor countries [deleted] [deleted] to some key regional recipients during 1977 1980 (they are in millions of US dollars, and the major donor for the period is shown in parentheses):

(deleted)----------------------------(deleted)

Other NATO allies also provide economic assistance to Southwest Asia countries. [Deleted.]

Japan also has provided significant amounts of economic aid to some countries in the region [deleted].

In addition, the FRG has provided large-scale grant military assistance as well as economic aid [deleted] [deleted] to Turkey, a NATO ally whose location makes it strategically important with respect to Southwest Asia.

ALLIED SUPPORT

QUESTION: How could Japan be of greater support in this region?

ANSWER: Japan has increased its aid to Southwest Asian countries since the invasion of Afghanistan, e.g. an increase of over $100 million to Pakistan and Turkey. Japan has announced that its overall economic assitance which doubled in the years 1975-79 will redouble in the period 1980-84. Some of this increase will most likely go to Southwest Asia.

QUESTION: What are you doing to encourage greater Japanese involvement?

ANSWER: The U.S. is appreciative of what Japan has done and is encouraging greater aid efforts, not as a substitute for increased Japanese defense efforts which are urgently needed, but as a meaningful adjunct which is appropriate for an economically advanced country.

QUESTION: The Japanese are developing the capability to defend sea-lanes 1,000 miles from their islands. How firm is this commitment? What is the timing?

ANSWER: Prime Minister Suzuki affirmed that defense of the sea-lanes to 1,000 miles is within Japan's constitutional limitations and is national policy. No timing has been set by the Japanese Government. The U.S. hopes Japan will achieve this capability by the end of this decade.

JAPAN'S DEFENSE

QUESTION: We understand Prime Minister Suzuki said the 1,000 mile target was not a commitment. What is the situation?

ANSWER: Prime Minister Suzuki did not pledge to President Reagan that Japan would defend its sea-lanes to 1,000 miles. At the National Press Club, the Prime Minister acknowledged the Japanese policy goal of being capable of sea-lane defense to a distance of 1,000 miles. The U.S.G. has endorsed this Japanese goal which the Prime Minister has not backed away from. He has only said that he didn't promise anything new about sea-lane defense while he was in Washington.

ALLIED SUPPORT

QUESTION: Why can't Japan provide substantial indirect assistance for Southwest Asia defense? (economic aid, military assistance, etc.)

ANSWER: Japan has increased its aid to Southwest Asian countries since the invasion of Afghanistan, e.g. an increase of over $100 million to Pakistan and Turkey. Japan has announced that its overall economic assistance which doubled in the years 1975-79 will redouble in the period 1980-84. Some of this increase will most likely go to Southwest Asia.

A NEW RDF

QUESTION: At our last hearing we learned that the U.S. Readiness Command will activate a new Joint Task Force for operations in "areas not assigned to other unified commands". Once the current RDF becomes a unified command for Southwest Asia, will this Joint Task Force become the new RDF?

ANSWER: No--not a "new RDF". USREDCOM is currently responsible for providing, as directed by the Joint Chiefs of Staff--for areas not assigned to another unified command--contingency planning, a joint task force headquarters, and forces for conduct of contingency operations. Such operations may be executed under direction of the National Command Authorities through the Joint Chiefs of Staff, under USCINCRED operational command of another designated commander. It is important to understand that rapid deployment forces available to the new command for Southwest Asia for planning and training could also be deployed in support of unified commanders in other parts of the world. This could be accomplished by providing these forces either as separate reinforcing units for the other CINCs, who have plans which anticipate their receipt, or as part of a Joint Task Force.

QUESTION: Earlier this year Secretary Weinberger stated that $4 billion is requested in the FY 1982 budget for RDF. How was this estimate derived?

ANSWER: Mr. Weinberger's statement (made while visiting Riyadh, Saudi Arabia in February) indicated that $4B in the FY 83 budget for Southwest Asia included substantial funding to buy more fast ships and long distance cargo planes. While Defense programming is based on a scenario that begins in SWA, our mobility programs (i.e., strategic and tactical airlift, amphibious shipping, and strategic sealift) are actually needed for worldwide contingencies. Accordingly, our current cost figures do not apportion mobility costs to SWA. Our more precise compilation of SWA costs, therefore, amounts to about $2.4B in FY 83.

QUESTION: How does this figure reconcile with the combined $2.4 billion of RDF specific and RDF related items you mention in the statement?

ANSWER: The previous figure ($4B) simply included more programs than we now apportion strictly to SWA, particularly mobility programs. By applying our more precise criteria to the compilation of costs for SWA, the request for SWA-specific and related programs for FY 83 amounts to the $2.4 billion figure.

QUESTION: How is the funding request broken down throughout the five year plan?

ANSWER: We compile program costs for SWA in two categories: (1) SWA-specific (programs that would likely be deleted if we did not plan to carry out a SWA-RDJTF strategy) and (2) SWA-applicable (programs that may have been developed for SWA but also would support missions in other regions). At this time the FYDP totals for these two caregories are ($ millions):

	83	[deleted]	[deleted]
SWA-Specific	729	[deleted]	[deleted]
SWA-Applicable	1,712	[deleted]	[deleted]

These cost estimates, of course, are subject to change by Congressional actions and DoD revision in the ongoing budget deliberations.

Additional Force Structure

QUESTION: General Kingston testified that additional forces will be requested for the Southwest Asia Command in the FY 1984-1985 programs. What is the size of the planned increase?

ANSWER: No major combat force structure increases are programmed to support an expanded RDJTF. Currently 2 1/3 Army divisions, 12/9 of a Marine Amphibious Force, 4 tactical fighter wings and 3 carrier battle groups are allocated for planning for use in a Southwest Asia contingency. [Deleted.] While the programmed RDJTF is significantly larger than the current force, the combat elements will be made up of existing units.

QUESTION: **Will this result in an increase in military end strength?**

ANSWER: **While there will be an overall increase in military end strength, these increases are based on worldwide requirements and are not identified specifically for Southwest Asia.**

QUESTION: **What role will the Reserves play in the force structure buildup?**

ANSWER: **As indicated above, the RDJTF (current and programmed) is staffed from existing units. No combat force structure buildup for Southwest Asia is programmed. Reserves will play a key role in providing combat, combat support, and service support forces for deployment to Southwest Asia. As additional forces are made available for Southwest Asia planning during the program years, Reserve Components will be added where necessary to provide required support.**

QUESTION: How many general officers does the Readiness Command have now? How many do other unified commands have?

ANSWER: The number of general/flag officers for the unified command headquarters is as follows:

US READINESS COMMAND	6
ATLANTIC COMMAND	2
US EUROPEAN COMMAND	10
PACIFIC COMMAND	10
US SOUTHERN COMMAND	2

QUESTION: How can we control the continuing growth of officers -- particularly general officers -- if we continue to create new commands every time a new military requirement is generated?

ANSWER: There is not a continuing growth of officers. In the case of the RDJTF, the positions were provided from within current Service assets. Current end strength and grade constraints preclude growth in the number of officers, for new commands, to include general/flag officers, unless Congressionally approved.

READINESS COMMAND

QUESTION: Mr. Secretary, what factors led you to reject General Warner's recommendation to shut down the Readiness Command?

ANSWER: During the evolution of the command relationships for Southwest Asia, General Warner's views were carefully examined along with several other USREDCOM, USEUCOM, PACOM, and RDJTF command arrangement options for the region. The Commander, RDFTF, is currently assigned operational planning responsibility for SWA. This narrowed scope reflects our recognition of the need for a full time major commander to develop detailed plans for the wide range of possible contingencies in the region. The current structure allows the Commander, RDJTF, to plan his operations effectively, exercise his forces, and maximize their combat readiness. None of this permits deactivation of the Readiness Command.

USREDCOM's command structure is proper and consistent with its assigned mission and its own distinct functions. It is important to understand that USREDCOM's functions have not been duplicated by the RDJTF and will not be duplicated by the new unified command for Southwest Asia. If USREDCOM were disestablished, the following USREDCOM tasks would have to be assumed by another organization:

-Providing a general reserve of combat-ready forces to reinforce other unified or specified commands when and as directed.

-Deployment planning for assigned or programmed forces to reinforce the other unified or specified commands.

-Joint training, including joint training exercises, of assigned forces and the development of appropriate recommendations to the Joint Chiefs of Staff regarding joint tactics, techniques, and procedures for the joint employment of forces assigned.

-Providing, as directed by the Joint Chiefs of Staff--for areas not assigned to another unified command--contingency planning, joint planning, joint task force headquarters, and forces for conduct of contingency operations. Such operations may be executed under direction of the National Command Authorities through the Joint Chiefs of Staff, under USCINCRED operational command, or under operational command of another designated commander.

-Conduction disaster relief activities or evacuation operations in areas not assigned to another unified or specified command when directed by the Joint Chiefs of Staff.

-Providing leadership for the Joint Deployment Agency (JDA). (USCINCRED is dual-hatted as Director, JDA).

QUESTION: As of January 83 the RDJTF will be removed from the operational control of REDCOM. What other organization realignments would have to occur before REDCOM could be eliminated?

ANSWER: Actually, the RDJTF has already been removed from REDCOM control. On 1 October 1981, the RDJTF became a separate joint task force reporting to the National Command Authority (NCA) through the JCS. This action had little impact on USREDCOM because of the unique responsibilities already assigned to USREDCOM. Those responsibilities--which would have to be assumed by other organizations--include:

a. Providing a general reserve of combat-ready forces to reinforce other unified or specified commands when and as directed.

b. Deployment planning for assigned or programmed forces to reinforce the other unified or specified commands.

c. Joint training, including joint training exercises, of assigned forces and the development of appropriate recommendations to the Joint Chiefs of Staff regarding joint tactics, techniques, and procedures for the joint employment of forces assigned.

d. Providing, as directed by the Joint Chiefs of Staff--for areas not assigned to another unified command--contingency planning, joint task force headquarters, and forces for conduct of contingency operations. Such operations may be executed under direction of the National Command Authorities through the Joint Chiefs of Staff, under USCINCRED operational command, or under operational command of another designated commander.

e. Conducting disaster relief activities or evacuation operations in areas not assigned to another unified or specified command when directed by the Joint Chiefs of Staff.

USREDCOM's command structure is proper and consistent with its assigned mission and its own distinct functions. It is important to understand that USREDCOM's functions have not been duplicated by the RDJTF and will not be duplicated by the new unified command for Southwest Asia.

QUESTION: Even though the RDF will be separated from REDCOM, it is not expected that the REDCOM personnel levels will decline. How is this possible?

ANSWER: The missions of the RDJTF and USREDCOM are distinct. The RDJTF has a primary focus on Southwest Asia and will evolve into a unified command for that region on 1 January 1983. USREDCOM is a unified command responsible for:

a. Providing a general reserve of combat-ready forces to reinforce other unified or specified commands when and as directed.

b. Deployment planning for assigned or programmed forces to reinforce the other unified or specified commands.

c. Joint training, including joint training exercises, of assigned forces and the development of appropriate recommendations to the Joint Chiefs of Staff regarding joint tactics, techniques, and procedures for the joint employment of forces assigned.

d. Providing, as directed by the Joint Chiefs of Staff--for areas not assigned to another unified command--contingency planning, joint task force headquarters, and forces for conduct of contingency operations. Such operations may be executed under direction of the National Command Authorities through the Joint Chiefs of Staff, under USCINCRED operational command, or under operational command of another designated commander.

e. Conducting disaster relief activities or evacuation operations in areas not assigned to another unified or specified command when directed by the Joint Chiefs of Staff.

Current and projected manpower requirements for USREDCOM are predicated on assigned mission responsibilities.

Because the mission and responsibilities of USREDCOM have not decreased since the RDJTF became a separate JTF in October 1981, the personnel authorizations for the command have not been lowered. This does not preclude us from reducing USREDCOM personnel levels in the future if its assigned responsibilities are decreased.

RDF HEADQUARTERS

QUESTION: As a result of the change from a world-wide strike force to a unified command restricted to Southwest Asia, the RDF headquarters personnel will increase from 332 in FY 1982 to 967 in FY 1983. How is it that a task force requires one-third the overhead of a unified command?

ANSWER: A unified command is a command with a broad continuing mission, under a single Commander and composed of significant assigned components of two or more Services. A joint task force is not a permanent command arrangement. It is established when the mission to be accomplished has a specific limited objective and does not require overall centralized direction of logistics. The new unified command for Southwest Asia will assume additional responsibilities over those for a joint task force and as such, requires an increase in the size of its headquarters. Responsibilities which could be assigned to the new command are:

- Planning for and execution of operations in contingencies limited war and general war.
- Planning for and conduct of operations other than hostilities such as evacuation of US noncombatant and certain non-US persons abroad.
- Military representation and advice to Chiefs of US Diplomatic Missions.

- Planning for and the administration of the military aspects of security assistance.

QUESTION: We understand that the RDF originally sought over 1,500 headquarters staff. Should we expect a migration up to this level?

ANSWER: The joint manpower program submitted to, and approved by the JCS, was for 967 manpower spaces. This approved joint manpower program of 967 spaces is expected to remain constant based on the currently assigned mission and functions for RDJTF.

QUESTION: Exactly why is this huge headquarters staff required? We need specific justification for your personnel and support cost requests.

ANSWER: The headquarters staff is required for assumption of full unified command status. The justification for this increase is fivefold: First, the duties and responsibilities are those of a unified command. Second, the inherent requirement to forward deploy a headquarters element to the area of responsibility while the main headquarters remains at MacDill AFB. Third, the workload that will result with assumption of responsibilities for Foreign Military Sales for RDJTF's assigned area -- the largest FMS program of any region of the world. Fourth, assumption of responsibilities for military construction, which is also very significant in scope with responsibility spread between the Services and two existing unified commands; and fifth, the increased operational planning responsibility that is anticipated with the area of operations for which the command will be responsible. When considering the magnitude of these missions and the importance to the viability of our country in the near term, this increase in staff is considered to be a modest investment. It compares very favorably to the manning levels of currently existing unified commands, which in themselves are geographically located wihin their respective areas of operations and have had years to establish support structures that are not reflected in their Joint Tables of Distribution.

QUESTION: Where are all the new headquarters positions coming from?

ANSWER: In the near term, the positions for the RDJTF headquarters are being drawn from existing Service authorizations.

QUESTION: Why can't all the headquarters authorizations be absorbed within current end strength?

ANSWER: The authorizations for the RDJTF headquarters are being drawn from current Service end strengths.

QUESTION: Witnesses have previously testified that the headquarters staff of REDCOM, the Joint Deployment Agency, and the Joint Communications Support Element will not be reduced due to continued support for the RDF. In view of this sustaining support, what other factors cause the increase in RDF headquarters?

ANSWER: The headquarters and agencies cited above have responsibilities beyond that of the RDJTF. REDCOM functions were outlined earlier (pg 102, Insert 3). The JCSE, which has the capability for world-wide deployment, supports the RDJTF in addition to all unified commands.

The RDJTF, currently a separate JTF reporting directly to the NCA through the JCS, is transitioning to a unified command for Southwest Asia. Its personnel authorizations have been increased to plan and develop the capabilities necessary for unified command status. The responsibilities the new command could assume include:

-Planning for and execution of operations in contingencies, limited war and general war.

-Planning for and conduct of operations other than hostilities such as evacuation of US noncombatant and certain non-US persons abroad.

-Military representation and advice to Chiefs of US Diplomatic Missions.

-Planning for and the administration of the military aspects of security assistance.

QUESTION: Mr. Secretary, we have heard previous testimony that facilities at MacDill AFB will only accommodate half of the planned increase in RDF headquarters staff. What would be lost to the process if the staffing buildup were slowed to accommodate the facilities projects?

ANSWER: The ongoing construction at MacDill AFB will accommodate approximately 40 percent of the headquarters staff. Upon completion of the second phase of construction (included in the DOD FY 1982 supplemental request) the headquarters facility will accommodate the entire RDJTF headquarters staff. Until phase II is completed, those members of the Headquarters RDJTF staff not accommodated in the phase I portion will occupy existing temporary facilities (trailers, SAC alert facility) used by the RDJTF.

The staffing buildup of personnel for the RDJTF has been programmed to provide for an as orderly a strength increase as feasible giving due consideration to the requirements of the Services and Servicemembers affected. If the staffing buildup were slowed to accommodate the facilities projects, the normal operating responsibilities which the new command is to assume on 1 January 1983 would be delayed.

FY 83 PERSONNEL REQUEST FOR RDF HEADQUARTERS

QUESTION: There is a discrepancy in the information for the record concerning the FY 1983 personnel request for RDF headquarters. The planning assumption is that 967 headquarters staff will be required in FY 1983, yet the budget justification material only addresses 640 personnel. What explains this variance?

ANSWER: Budget estimates must precede actual requirements by definition. Early estimates for the HQ RDJTF staff were based on individual Service inputs as developed for the then existing Terms-of-Reference (TOR) established by the JCS and approved by the SECDEF. As the TOR was adjusted (due to a change in administration), the definition of confrontation states expanded, negotiations with allies for forward operating locations and prepositioning of equipment sites progressed, and the unit itself refined its needs based on mission requirements; the manpower to support the Headquarters were also adjusted. A total of 967 authorizations were approved by the JCS on 9 Mar 82 to support a full unified command status on 1 Jan 83 under the current TOR (343 Army, 157 Navy, 328 Air Force and 139 Marine Corps). The 640 figure was the best position available at budget submission deadline.

JOINT COMMUNICATIONS SUPPORT ELEMENT

QUESTION: Information for the record indicates that the Joint Communications Support Element will reduce 99 military and 13 civilian positions below the budgeted level. What is the estimated savings from this action?

ANSWER: The dollar savings from this action will be $1.9 million. The "savings" indicated, however, are misleading. After submission of the FY 1983 President's Budget, 99 military authorizations and 13 civilian authorizations were identified as an overestimate to the current requirements of the Joint Communications Support Element. As the HQ RDJTF grows to a full Unified Command, it has been assigned numerous additional responsibilities resulting in additional manpower requirements. These requirements sustain growth in both operational and base operating support elements. The Air Force intends to take reprograming actions to use the overestimated manpower in JCSE to partially offset the additional requirements in the RDJTF.

REDUCTION OF MILITARY SPACES

QUESTION: Similarly, a reduction of 50 military spaces from the Joint Special Operations Support Element is planned for FY 1983 below the budgeted level. What are the estimated savings?

ANSWER: The dollar savings from this action will be $.8 million. As we answered on the Joint Communications Support Element, the Air Force intends to take reprograming actions to use the 50 military space overestimate to partially offset requirements in other areas of the RDJTF.

FUNDING REQUIREMENTS AT MACDILL AFB

QUESTION: Please provide for the record a detailed cost accounting of funding requirements by appropriation for all activities at MacDill AFB -- including the cost and source of all borrowed military strengths.

ANSWER: The following amounts reflect presently programmed funding to support activities at MacDill AFB. The amounts support both joint activities such as USREDCOM and RDJTF as well as the normal operations of TAC's 56th Tactical Training Wing and its associated organizations. There are no "borrowed military strengths" used by the Air Force at that installation. Personnel from other services are assigned to joint service organizations like USREDCOM and RDJTF. Their military pay costs continue to be borne by their parent service while their support costs are included in the amounts shown for each organization. The dollar values for the joint activities represent their program as contained in the President's FY 1983 Budget, as does the "TAC Units" military construction (Milcon) amount, and military pay. The "TAC Units" and "Other Tenants" Operations and Maintenance (O&M) funding represents their FY 82 funded level projected into FY 83.

FY 83 Costs at MacDill AFB ($ M)

Unit	O&M	Milcon	Oth Proc	USAF MilPay	Mil Fam Hsg	AF Mil	ES Civ	Add'l Mil E/S
RDJTF	$6.3			$4.2		160	4	640
REDCOM	5.9		$2.9	2.9		106	64	145
JDA	.6			1.2		41	15	90
JSOSE	.1			1.2		64		29
JCSE	4.6			5.1		308	29	247
TAC Units[1]	42.9	$5.0[3]	.2	61.4	$6.7[4]	3,396	524	-
Other Tenants[2]	4.9			8.0		463	232	-

1 -Primarily the 56th Tactical Training Wing and its components. Also includes 71st Tactical Control Flight and other small support organizations.

2 -Primarily the 1928th Communications Group. Also includes the 3751st Field Training Squadron and other tenant units.

3 -Includes $2.3M for community support facilities associated with RDJTF/REDCOM, but provided as part of host base support responsibilities.

4 -Includes $3.2 for new housing construction to help alleviate deficiency in available on base/off base housing.

QUESTIONS SUBMITTED BY SENATOR SCHMITT

QUESTION: USCINCEUR has moved naval forces into position to evacuate US nationals from Lebanon. How would the new unified command, located at MacDill AFB (RDJTF), respond to such a crisis if it were in charge of the area? Isn't it similar to the problems we had with the old STRIKE/MEAFSA Command (Middle East, South Asia and Africa South of the Sahara) before we did away with it and established the Readiness Command? They couldn't respond to crises in the region either, could they?

ANSWER: **[Deleted]** the new command will be equipped to conduct evacuation operations within its area, and will have that responsibility assigned to it. Non-combatant evacuation operations are usually connected with diplomatic agreements and are conducted at a level of tension well below that of war. The new unified command has 4-service transportation, communications, and force assets suitable to conduct combat operations in its geographic area of responsibility, and would use only a portion of its assigned assets and structure to carry out the evacuation of US nationals.

QUESTION: In creating a unified command for Southwest Asia, are you anticipating that the unified command will be based at MacDill AFB or in Southwest Asia?

A. How do you plan to build the infrastructure needed for a unified command from CONUS?

B. What nations in that region are willing to allow the US to base a unified command in their nation and to build the infrastructure needed for such a command?

ANSWER: Our current plan is to have the headquarters for the new unified command remain at MacDill AFB close to the forces under its operational control. This location will enhance training and readiness of these forces for rapid deployment and employment in the Southwest Asia region.

A. The unified command headquarters will be organized along traditional lines to accomplish all of the duties of a unified command. [Deleted] will enhance command and control of the new CINC by continually monitoring regional state activities, coordinating with national representatives for politico-military issues (including exercises), conducting normal operational functions within the region, and facilitating contingency planning.
B. Nations in the region are aware of our intention to establish the new unified command. Options are being examined for the development of the supporting infrastructure with special consideration being given to mutual defense needs. It is premature to discuss specific nations that have offered facilities in the region.

QUESTION SUBMITTED BY SENATOR KASTEN

QUESTION: A number of people have criticized current RDF planning as far too dependent on access to military facilities that is not assured. They argue that the RDF should instead be structured as a smaller, highly mobile force stressing sea-based, forcible-entry capabilities.

Jeffrey Record argues this point in a number of publications, including a study published by the institute for foreign policy analysis.

Senator Tower outlined a similar plan this past February.

The Armed Services Committee Report recommends the establishment of a Forward Command Element in the Persian Gulf region at sea "to avoid the problems that might result from land-basing." It also recommends that U.S. planning "should emphasize flexible forces that are not overly dependent on access to land facilities for deployment and employment.

How do you react to the criticisms? And how do you evaluate the suggestions made by the Armed Services Committee and others?

ANSWER: The argument that the Rapid Deployment Joint Task Force be a smaller highly mobile force possessing sea-based, forcible entry capabilities has been considered. The disadvantage of the "maritime approach" is that no one Service has the capability to accomplish the RDJTF mission. Any conflict involving a major Soviet invasion could require all the combat capabilities the United States could project. Naval and Marine forces, on the scene today, would be among the first to fight; [deleted].

The forward headquarters "afloat option" was carefully considered. It has some advantages (principally transcending political constraints and providing mobility) but it has major disadvantages. Getting a dedicated ship (plus support) is the first obstacle. There is none presently available. Other disadvantages include:

- Gulf States might object to presence in Persian Gulf waters.
- Normal operations (i.e. Security Assistance, political-military interface) may be difficult to effectively perform from afloat.

REGIONAL MILITARY FORCES

QUESTION: Your statement mentions the desire to rely on friendly regional states to provide military forces in contingencies not involving the Soviet Union. Doesn't this foster an aggressive posture among the countries we are supporting and assist in creating a situation where the Soviet Union and the United States could be drawn into the conflict?

ANSWER: No, on the contrary. First, we encourage friendly regional states (and indeed we assist them) to build defensive forces to protect their homelands from local or regional elements that may be disruptive to the region's stability. We do not support aggressive actions on their part. Second, with competent military forces, friendly regional states can deter other states in the region from attacking them, and avoid the destabilizing contingencies that otherwise may result. [Deleted.]

ALLIED ASSISTANCE IN SWA CONTINGENCIES

QUESTION: You mentioned the goal of employment of US forces--with assistance from friends and allies--at several levels of conflict. Are you optimistic that we will receive support and assistance from our NATO allies in a Middle East/Southwest Asia scenario?

ANSWER: Yes, we are basically optimistic, although the assistance from our friends and allies would depend to a great degree on the scenario. Assuming direct US involvement would arise from a threat to vital Western interests or a request from a regional state, we would likely receive the greatest support from our allies when meeting challenges to common interests, particularly a threat to access to vital oil resources in the area. [Deleted.]

ASSISTANCE FROM JAPAN

QUESTION: You mention Japan. Do you really have any optimism that they would assist us in this area?

ANSWER: We do not expect military assistance from Japan in Southwest Asia. Japan's military role is limited to self-defense in the Northwest Pacific. Nonetheless, by Japan's carrying out that role, the U.S. will be more able to bring forces to bear in Southwest Asia.

QUESTION: With Afghanistan and Poland fronts continuing to require substantial troops and materiel, would you believe the Soviets would be inclined to initiate a third front in the Middle East/Southwest Asia area at this time?

ANSWER: Soviet requirements to support their operations in Afghanistan and Poland would not preclude their use of military force in Southwest Asia. One cannot forecast Soviet inclinations, but rather must deal in capabilities given the uncertainties as to what would prompt Soviet action. Possible Soviet assistance [deleted].

QUESTION: What do you project the annual cost of maintaining approximately five divisions with a primary Southwest Asia orientation to be?

ANSWER: The annual cost of maintaining a primary orientation for five divisions to Southwest Asia is virtually zero. We have not created any new combat divisions in order to fulfill our new SWA-RDJTF strategy. Rather, we have simply reoriented five Army divisions toward Southwest Asia to facilitate more effective planning. These five divisions would not be dissolved if we ignored SWA.

QUESTION: What about the incremental cost annually of maintaining this specialized orientation?

ANSWER: We have recognized that sending combat forces to SWA involves some unique requirements and associated programming. At this time the Army programs that we have identified as being unique to SWA total ($ millions):

	83	84	85	86	87	83-87
Army	109	41	168	350	613	1,281

These programs are, of course, subject to change by Congressional budget actions and DoD revision during the current program review.

QUESTION: What would be the incremental cost of maintaining this force with the capability for worldwide contingencies?

ANSWER: We foresee no additional costs to maintain these five Army divisions for currently envisioned contingency employments. While we plan and program for the most likely contingencies all of our forces are employable worldwide--and, of course, all of our forces would be needed in a global conflict.

QUESTION: What was the essential element that dictated former Secretary Harold Brown in August 1980 to move from a Rapid Deployment Joint Task Force with a world-wide orientation to one that is focused exclusively on Southwest Asia contingencies?

ANSWER: In response to growing instability in the Middle East in 1978 and the fall of the Shah of Iran in January 1979, the Secretary of Defense directed (October 1979) the establishment of a Joint Task Force that could respond to aggression anywhere in the world. Initially this Joint Task Force was tasked to develop operational plans for Southwest Asia contingencies. Subsequent events, which included the takeover of the American Embassy in Iran and the burning of our Embassy in Islamabad in November 1979, heightened our need to focus on contingency planning for the area. Thus, in March 1980, the RDJTF Headquarters was established as a subordinate of USREDCOM to conduct predeployment planning and training. A short time later--in recognition of the magnitude of the planning task--the Secretary of Defense directed the new headquarters to focus planning exclusively on Southwest Asia contingencies.

LONG-TERM GOAL TO DEPLOY WORLDWIDE

QUESTION: When do you foresee us meeting your long-term goal of having the capability to deploy worldwide?

ANSWER: The Congressionally Mandated Mobility Study recommendation is the accepted long term Department of Defense goal and includes airlift, sealift, and prepositioning programs to reduce force projection shortfalls.

I foresee meeting these long term goals for airlift in the mid-90s. This would include our current C-5/KC-10 and CRAF enhancement programs, coupled to a follow-on procurement of an advanced airlift aircraft or in-production widebody military airlifter.

I must add, however, that our long term goal does not totally eliminate mobility shortfalls, primarily due to the magnitude of shortages. Rather, it is a balanced program designed to reduce shortfalls through judicious application of national resources.

PRINCIPAL ELEMENTS LACKING TODAY

QUESTION: What are the principal elements that we are lacking today?

ANSWER: Worldwide deployment involves a delicate balance of forces and capabilities in a resource constrained, worldwide threat environment.

National mobility has basically four main elements: forward basing, prepositioning, airlift, and sealift. We have shortages in all areas and our force progams address a balanced approach to reduction of shortfalls.

Airlift has across-the-board shortages in its capability to move outsized, oversized, and bulk cargo in a timely manner to any major contingency. Specifically, we lack the ability to move effective quantities of operationally configured outsized cargo. Air movement of oversized/bulk cargo also constrains our capability to deploy and sustain combat units.

FUNDS FOR REQUISITION OF 747-TYPE AIRCRAFT

QUESTION: Will the Senate version of the Defense Authorization Bill, which includes funds for requisition of 747-type aircraft, assist in your goal of improving the strategic airlift fleet?

ANSWER: No. Because of its limitations, I do not consider the 747 an improvement -- just an addition. I say this because: (1) the 747 offers no outsized airlift capability, (2) it offers no capability for drive on/drive off of operationally configured equipment, (3) it has no potential for aerial delivery, and (4) its flotation characteristics restrict operations to major aerial ports of delivery and improved surfaces.

SWA COMMAND

QUESTION: What dictated the move to elevate the Rapid Deployment Joint Task Force to a separate unified command for Southwest Asia?

ANSWER: The move to elevate the Rapid Deployment Joint Task Force (RDJTF) to a separate unified command for Southwest Asia (SWA) was not dictated, but evolved from an appreciation and awareness of powerful international factors that made SWA a very critical area to the US and its allies. A combination of factors in the 1960s and 1970s have led to a strong need for a US commitment in this area. First, was the tremendous growth in the importance of oil as a source of energy and the prominent role that the nations of the Persian Gulf play in providing a source of oil for export to the West (United States, W. Europe, Japan). Second, was the reduction in security provided previously by other nations in the area namely the United Kingdom and France. Third, was the tremendous growth in military capability of the Soviet Union and the expression in Afghanistan of Soviet willingness to use that power to serve Soviet ends. Fourth, was the increased possibilities for instability in the area as reflected in the fall of the Shah of Iran, the taking of American hostages, and the outbreak and uncertainties of the Iran/Iraq war.

[Deleted.]

First, we have not added any new US military force structure, but we have created a new concept of command. As you all know, the US Readiness Command has responsibility for areas not assigned to other US unified commands. It also has responsibility for ensuring forces are available and ready to deploy overseas in support of other unified commanders. This function of US Readiness Command has and will not change. However, from the US Readiness Command, we have been evolving a new command with a specific focus and dependent upon the most vital aspects of rapid deployment. Today, we call it the Rapid Deployment Joint Task Force.

The Headquarter's Rapid Deployment Joint Task Force (HQ, RDJTF) was established on March 1, 1980. Then, it was a subordinate of the US Readiness Command. It began reporting directly through the Joint Chiefs of Staff to the Secretary of Defense when it was chartered as a separate task force on October 1, 1981, part of the plan approved in April of 1981 by the Secretary of Defense, which would eventually result in taking the HQ, RDJTF from a JTF to a separate unified command for Southwest Asia. We are planning to initiate this new unified command on 1 January 1983.

QUESTION: Just what is the incremental cost in terms of additive personnel and resources that are required to support a separate unified command headquarters as opposed to a headquarters supporting the joint task force?

ANSWER: To accomplish the additional functions of a unified command will require the addition of approximately 700 people, some extra communications equipment, and appropriate headquarters facilities. The new functions, over and above planning and preparing for contingencies, typically include such things as planning for other regional operations, administering security assistance programs, and arranging for training and exercises. The size of this unified command headquarters contingent will be roughly comparable to those of EUCOM and PACOM. Although the new command's headquarters contingent will be larger than that of the joint task force because of the need to perform additional functions, there is no increase in overall personnel end strengths. We expect the "additional" personnel to come from existing Service resources.

To provide office space for this headquarters we program to spend about $20M to construct a headquarters building at MacDill AFB. Additionally, we have programmed about $80M in FY 86-87 to build a Forward Headquarters Element (FHE) facility in Southwest Asia, as a suitable site becomes available. The personnel to man the FHE are included in the above 700-person estimate.

As for communications equipment, Congress appropriated $4.3M in FY 82 to procure command post consoles, telephones, and internal security equipment. We plan to spend $2.2M in FY 83 to lease the commercial lines necessary to connect the new command with the National Military Command Center.

QUESTION: Could you address just what additional capability that the Defense Department accrues by having this organization designated as a unified command as opposed to a Joint Task Force?

ANSWER: A unified command is a command with a broad continuing mission, under a single commander and composed of significant assigned components of two or more Services. A joint task force is not a permanent command arrangement. It is established when the mission to be accomplished has a specific limited objective and does not require overall centralized direction of logistics. A unified command enhances unity of effort through common use of limited logistic means in a large geographic area requiring positive control of a large and complex force.

SUBCOMMITTEE RECESS

Senator **ANDREWS**. The subcommittee will stand in recess until Wednesday, June 16, at 10 a.m. when we are going to hear about the DOD Shuttle support.

Thank you very much.

[Whereupon, at 11:15 a.m., Thursday, June 10, the subcommittee was recessed, to reconvene at 10 a.m., Wednesday, June 16.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1983

THURSDAY, MAY 13, 1982

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The subcommittee met at 10:09 a.m., in room 1318, Everett McKinley Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Schmitt, and Andrews.

DEPARTMENT OF DEFENSE

DEPUTY ASSISTANT SECRETARY OF DEFENSE FOR RESERVE AFFAIRS

STATEMENT OF EDWARD J. PHILBIN, DEPUTY ASSISTANT SECRETARY OF DEFENSE FOR RESERVE AFFAIRS

GUARD AND RESERVE PROGRAMS

HEARING PROCEDURE

Senator STEVENS. Good morning, gentlemen. In opening I will have to apologize to you for the problems that we have. As you know, the Department of Defense bill is on the floor. We are going to have repeated votes throughout the morning. In addition to that, we have the President of Brazil who is here and have requested that we go down in small groups to meet the President, so we will have a revolving hearing this morning. But I am assured that some of my colleagues will be here after the vote to assist in conducting the hearing.

BUDGET REQUEST

We are here to hear the testimony of the Guard and Reserve Forces appropriation request for fiscal year 1983. The total 1983 budget estimate for the Guard and Reserve military personnel is $4.6 billion. That is 33 percent up over last year. The total Guard and Reserve operation and maintenance budget is $5 billion, 8 percent over last year.

We are pleased to have you all with us today.

We have your statements, and they will be incorporated into the record.

I see you all are identified for the purpose of the record, so we will proceed as you wish.

Dr. Philbin, do you wish to proceed first?

Dr. PHILBIN. Yes, sir, we have an opening statement.

CAPABILITIES OF GUARD AND RESERVE

Mr. Chairman, members of the subcommittee, I appreciate this opportunity to appear before you and present information on the seven Reserve components of the U.S. Armed Forces. As I am sure you are well aware, the problems that beset the total force are problems for the regulars as well as for the Guard and the Reserve. The need for personnel and equipment has been and will continue to be a significant factor in our ability to accomplish our mission. We are also confronted with the specter of having large quantities of the equipment in our hands now become obsolete within the next few years. In addition to these materiel shortages, to make the most of our people and equipment, we require more and better training opportunities if we are to have a credible deterrent to offset the aggressive policies and behavior of our potential adversaries.

These problems cannot be quickly resolved and must be addressed at both the Defense Department and the congressional level. In the interest of accuracy I must quickly add that the capabilities of today's Guard and Reserve are better than they have been since the end of World War II, and thanks to the efforts of Congress and the vitality and dedication of the leadership and members of the Reserve components themselves, we become stronger and more capable every day.

AREAS OF PROGRESS

I would like to highlight briefly some areas of significant progress.

The strength of the Selected Reserve is vastly improved over what it had been at the close of the last decade. The caliber of our first-term enlistees is improving, and our ability to attract highly skilled prior service members is at an all-time high. Retention, while not matching expectations as yet, is nevertheless improving. Our pretrained individual manpower situation improved considerably in fiscal year 1981, and I feel confident that if the incentive programs we are proposing, coupled with a lengthened military service obligation, are approved, we will see a significant reduction in the manpower shortfalls in that category.

EQUIPMENT PROBLEMS

The equipment problems inherited by this administration are of such magnitude that even in a fiscally unconstrained environment it would take a considerable period of time to correct them. But there are positive signs of progress. Congress has taken an important step by requiring an annual report on the status of Guard and Reserve equipment. The audit process made necessary by the report-writing process directly supports the DOD policy that the units destined to fight first, whether active, Guard or Reserve, are to be properly equipped first.

Unitary buys of new weapon systems that will satisfy the total needs of both the Active and Reserve Forces are the best solutions to problems of equipment incompatibility. Multiyear procurement contracts offer another means of alleviating equipment shortfalls simply by getting more for the dollar spent. This technique enables commitment early in the acquisition cycle to purchasing a sufficient quantity to satisfy the requirements of the total force as opposed to a series of incremental contracts over time.

Although requiring substantially more funding at the beginning of an acquisition cycle, these costs are more than compensated by the economies of scale realized in unitary buy production and stimulated competitive bidding. Above all, increased participation by the leadership of the Reserve components themselves in the entire process of procurement and distribution at all levels of the decisionmaking structure is the common denominator of each measure taken to address the problem.

EQUIPMENT NEEDS

Statements of the Guard and Reserve witnesses will address some specific improvements. Yet, in spite of these bright spots, there remains a critical need for the addition of more and better equipment for each of our Reserve components. Progress is being made, and I believe that with the assistance of this committee we shall continue to reduce the level of Guard and Reserve equipment deficiency.

In conclusion, Mr. Chairman, I wish to express my appreciation for the generous support of the Appropriations Committee, this subcommittee, and that of the Congress in general. Individuals in units of the Guard and Reserve are the repository of skills that this country desperately needs and that would require an incalculable price in time and resources to replace. Recognizing the vital contribution they make to our national security, I believe that the fiscal and management attention required to solve their problems can and should be provided by the military service, the Congress, and ultimately, the American people.

Historically we have called upon our citizens to defend our national interest in time of peril. It is both our birthright and part of our economic philosophy. The cost of a full-time Armed Force equal to today's threat would be devastating to economic growth in any other sector. I believe that a strong Guard and Reserve as an adjunct to our Regular Forces represent the best means of maintaining a believable deterrence and an effective combat capability should we be required to employ them in battle.

I ask your continued support toward achieving that end.

I am now prepared to answer to the best of my ability any questions which you may have, sir.

Senator STEVENS. Thank you, very much.

[The prepared statement of Dr. Edward J. Philbin follows:]

PREPARED STATEMENT OF EDWARD J. PHILBIN

DEPUTY ASSISTANT SECRETARY OF DEFENSE

(RESERVE AFFAIRS)

Mr. Chairman, Members of the Subcommittee; I am grateful for this opportunity to provide you with information on the status of the seven Reserve Components of the United States which include the Army National Guard, the Air National Guard and the Coast Guard Reserve. Since my appointment to this post and confirmation last June, I have had numerous opportunities to speak to representatives of government, the military services and associations, private industry, students and many others in our country about the role of the Guard and Reserve forces in the defense of this nation. In speaking to you today my message is the same one I have tried to communicate to them i.e., strong, well-equipped, combat ready forces of all of the Reserve Components are essential to our success if we are forced to engage in any form of serious sustained combat now and for the foreseeable future.

To produce a strong Guard and Reserve we have faced and will continue to face many problems in attracting sufficient numbers of people of the caliber we need, training and equipping them properly and ensuring that they remain available for service as long as their skills are employable. A central ingredient in the success of this effort is public awareness of both the need for and the real military capabilities of our Guard and Reserve units and personnel. The high level of professionalism of the individuals and units of our Guard and Reserve and where they stand in the scheme of things with regard to national defense has not been sufficiently publicized to the citizens of this country. Public awareness is always vitalized most quickly by the business and governmental leadership of the country. Consequently, I believe that keeping the Congress informed of both the capabilities and the needs of the Guard and Reserve is one of my principal functions if I am to expect you to authorize the expediture of public monies in support of these programs.

The Ready Reserve of the United States constitutes an armed force of over 1.3 million men and women who possess not only a high sense of duty and obligation but the self-confidence born of demonstrated ability.

Thirty-nine percent of the Total Force of three million four hundred thousand military personnel are members of Guard or Reserve units, Guard/Reserve trainees, or part of the Pretrained Individual Manpower resources of the Reserve Components.

Within funding constraints, units and individuals of the Reserve Components train and work side-by-side with active duty personnel on land, sea and in the air, often at the risk of and sometimes at the cost of their lives. They take part in overseas and CONUS based exercises throughout the year to maintain combat mission readiness and the capability to counter the current threat.

What we provide is done at bargain rates. Although various methods of calculation result in somewhat different numbers, approximately five percent of the FY 82 total obligation authority for DoD is designated for Guard and Reserve forces and the significant military capability which they provide.

At this point I would like to present some detail on the overall FY 1983 budget request for Guard and Reserve personnel, the strength of the Selected Reserve and the status of our Pretrained Individual Manpower.

Guard and Reserve Personnel Funding

For FY 1983 the Department is requesting $4.6 billion for appropriations to fund pay and allowances. This represents an increase of $1.1 billion over the revised FY 1982 request of $3.5 billion. After adjustments for projected FY 1983 pay increases and the transfer of the Navy Training and Administration of Reserve (TAR) program to reserve funding, this amounts to a program increase of $.6 billion or 16%. These additional funds will provide for the improved strength programs discussed below.

Table 1

Selected Reserve End FY Strengths

	FY 1981	FY 1982	FY 1983	Change From FY 1984
Army National Guard	389,009	398,016	417,019	+19,003
Army Reserve	225,214	251,849	268,531	+16,682
Naval Reserve	87,884	94,000	105,828	+11,818
Marine Corps Reserve	37,049	38,540	39,744	+ 1,204
Air National Guard	98,293	100,100	101,781	+ 1,681
Air Force	61,565	63,736	66,600	+ 2,864
Total	899,014	946,241	999,503	+53,262

Selected Reserve Strength

The FY 1983 authorization requests the Selected Reserve End FY Strength shown in Table 1. There are two manpower accounting changes in the authorization request. In FY 1982 10,615 additional Individual Mobilization Augmentees are included in Selected Reserve strength. This change was reflected in the FY 1982 Authorization Act. Beginning in FY 1983 full-time personnel in the Navy Training and Administration of Reserves (TAR) program are included in Selected Reserve strength. A total of 11,828 TAR personnel are in the FY 1983 end strength of the Naval Reserve. The TAR personnel were previously included in the active manpower authorization.

As in FY 1982, the FY 1983 Budget will provide significant increases in the strengths of the Army National Guard and Army Reserve. The Air National Guard and Air Force Reserve are programmed to increase their strengths to all-time highs. The Marine Corps Reserve also is programmed to increase strength significantly. Our goal is to achieve levels that will assure that our Selected Reserve Units are manned and able to fight effectively with a minimum delay following activation.

Pretrained Individual Manpower

The shortage of pretrained manpower needed in the event of mobilization has been of continuing concern to the Department of

Defense since 1976. Numerous low-cost or no-cost initiatives designed to increase the strength of the Individual Ready Reserve and Inactive National Guard (IRR/ING) have been completed or are on-going. The Department of Defense has developed a comprehensive package of initiatives designed to substantially increase the IRR and ING manpower supply.

The long-term correction to the shortage of pretrained individuals would be to increase the length of the military service obligation currently set at 6 years for anyone who joins the Armed Forces. Most individuals now enlist for three or four years of active duty or duty in Selected Reserve units and serve the remainder of their military obligation in the IRR or ING. Our proposed legislation would increase the amount of time served in the IRR or ING by allowing the Secretary of Defense the flexibility to extend the current six-year military service obligation (MSO) to a maximum of eight years. Because this proposal would affect only those who entered the Armed Forces after its enactment, any such extension would not produce an increase in the size of the IRR or ING for six years after its enactment. In the interim, other initiatives and incentives are required to retain current members of the Reserve Components for longer periods of time and to provide new sources of entry.

The first of these initiatives is the ING/IRR reenlistment bonus program. During FY 1981 Congress authorized a $600 reenlistment bonus for individuals who had completed their military service obligation and reenlisted in the IRR or ING for three years. The initial results of this program indicated that the amount of the bonus was too small to be effective in increasing strength to the desired degree although the results were positive. The bonus program added 6,618 trained members to the supply of pretrained manpower at a cost of $4.0 million in bonuses. It has been conservatively estimated that had the program not been available and these reenlistees had elected discharge, it would have required at least $7,000 to recruit and train each replacement for a total of over $46 million. A complete report on the results of this program was forwarded to the Congress last December. The bonus authority was not extended and the program ended on 30 September 1981. Currently, the only consequence of membership in the IRR or ING is the possibility of being recalled to active duty, probably for combat service. This is not a great inducement to reenlist. An enhanced Ready Reserve reenlistment bonus program appears to possess the greatest potential for significantly increasing IRR strength. Proposed legislation to reinstitute this bonus was sent to the Congress last month and provides a reenlistment bonus of up to $900 for individuals who agree to reenlist or extend their term of service for three years beyond their service obligation. This program would end after the proposed longer service obligation showed results.

During 1979 the concept of direct enlistment was tested and the Army will start a direct enlistment program in FY 1983. Direct enlistment would allow an individual to join the IRR, go on active duty for initial training, and then return to the IRR for the remainder of the military service obligation. After initial training, the individual could also be given the option of remaining on active duty or joining the Selected Reserve. If the choice was to serve out the MSO in the IRR, periodic refresher training would be required. However, to ensure the success of this program, an enlistment bonus may well be necessary to attract a significant number of quality individuals into the combat arms skills that are most needed. This program would remain in effect at least until strength increases from the proposed longer service obligation began to be realized.

Guard and Reserve Equipment

Historically Guard and Reserve forces have generally operated with equipment that has been replaced as outmoded or declared as excess by the Active Components. This process perpetuates a degree of block obsolescence in some cases to the extent of entire communities or models of hardware "dying" in the Reserve Fores due to aging, lack of spare parts or support equipment, and/or plans for replacement.

Other problems associated with such modernization "fall out" to the Reserve Components result in incompatibility of equipment between Active and Reserve forces and, often, in Reserve Component equipment which is not combat serviceable or even deployable. Such shortcomings further denigrate Reserve readiness by inhibiting training, penalizing the combat capability of the units affected, increasing the cost and complexity of maintenance and other logistics aspects and, in some cases, by presenting safety hazards as well. Less obvious is the fact that equipment deficiencies, to include obsolescence, have a negative effect on personnel recruitment and retention.

Resolution of these matters would not be easy even in an unconstrained fiscal environment. What has taken years to evolve cannot be reversed over night.

The Congress has taken an initial step by requiring an annual report on the status of Guard and Reserve equipment. This report, which was recently submitted to the Congress, not only displays shortfalls of major items but also provides a mechanism for auditing the procurement-through-distribution process. This audit will support the Defense policy that the units to fight first, Active or Reserve, are to be equipped first.

As you will hear in the succeeding statements by the Guard and Reserve witnesses, the equipment situation is improving. Some examples are: Thirty-eight modernization systems planned for introduction into the Army National Guard during FY 1984 through FY 1988 which is double the number planned last year; thirteen new equipment systems being introduced into Army Reserve units in FY 1983 including M60A3 and UH-60 helicopters; the expansion of the Naval Reserve Frigate program to a level of six FF-1052 class Frigates by the end of FY 1983; the planned reduction of Marine Corps Reserve equipment deficiencies from $531 million at the end of FY 1982 to $135 million at the end of FY 1987; the recent and continuing conversion and modernization of the Air National Guard and Air Force Reserve with F-4's, A-10's C-130's and, in the case of the Air National Guard, one squadron of F-16's programmed for FY 1983.

I do not intend to gloss over our equipment deficiencies. There is a critical need for more equipment and more modern equipment for each of our Reserve Components. It is a problem in which the Secretary of Defense has taken a personal interest and has directed that it receive priority attention. We are making some progress and I believe that with the assistance of this Committee, we will continue to reduce the level of Guard and Reserve equipment deficiencies.

In conclusion Mr. Chairman, I wish to express my belief that there is some outer boundary, some upper limit on size, number and resources, beyond which the Reserve concept as we know and practice it in this country, becomes unwieldy, unmanageable and inefficient. I do not know where that boundary lies but I am certain that we have not yet reached, are not even approaching, the outer limits of utility. The Guard and Reserve is, militarily and economically, a marvelous buy for the United States. I wish to express my appreciation for the generous support of the Reserve Components of this Committee and that of the Congress in general.

BIOGRAPHICAL SKETCH

EDWARD J. PHILBIN
Deputy Assistant Secretary of Defense (Reserve Affairs)

Nominated by President Reagan on June 5, 1981, to become the Deputy Assistant Secretary of Defense (Reserve Affairs), and confirmed by the Senate on June 15, 19812, Dr. Edward J. Philbin is the highest ranking appointee in the Department of Defense with specific staff responsibility for the management of the nation's Reserve Components. The scope of his duties includes providing direction to all of the Reserve Components, and representing their needs and capabilities within the Executive Branch and before appropriate Committees of Congress.

Dr. Philbin's appointment is the culmination of a 31-year Reserve career, which began in 1949 with 5 years of service as an enlisted Naval Air Reservist. Dr. Philbin credits the experience of those years with providing him a realistic perspective of and sensitivity to the motivations and needs of the junior enlisted reservist. Commissioned from the Air Force Reserve Officer Training Corps at San Diego State University, he then served two years on actie duty with the Air Force as a navigator and bombardier. His subsequent continuous hours, duty in Vietnam and, after being designated a Distinguished Graduate of the Class of 1978, selection as the first Reserve Officer appointed to the faculty of the Air War College. Dr. Philbin has served numerous regular and special tours of active Reserve duty, most recently as staff officer and Director of Research for the Secretary of Defense Reserve Forces Policy Board where, during 1980, he coathored a major study entitled "The Reserve Forces in the 1990's." Dr. Philbin was promoted to Colonel in the Air Force Reserve in June 1980 and, in accordance with the policy of screening key personnel from the Selected Reserve, was transferred to the Standby Reserve upon appointment to his present position. His military awards include the Legion of Merit, Meritorious Service Medal, and the Navy and Air Force Commendation Medals.

Born in New York City in 1932, he was awarded a Bachelor of Science in Mechancial Engineering from San Diego State University in 1957, and in 1965 received his Juris Doctorate, summa cum laude, from the University of San Diego School of Law. Dr. Philbin entered the practice of law in 1966 from a career of engineering and physics in the field of aircraft and space systems design and weapons research. He became a partner in a law firm in San Diego, specializing in civil litigation. He joined the University of San Diego School of Law faculty in 1970, served as an Assistant Dean, and became a tenured Professor of Law in 1973.

He is the author of over two dozen articles and studies in the fields of engineering, physics, law, and military affairs. The recipient of numerous academic, civic, professional and military awards, he received the National Geographic Society's General Orvil A. Anderson Award for excellence in political-military thought for his research study at the Air War College in 1978.

Dr. Philbin married the former Irene Marie Hall of San Diego in 1958. They are permanent residents of San Diego, currently residing in Burke, Virginia.

1 December 1981

DEPARTMENT OF THE ARMY

ARMY NATIONAL GUARD

STATEMENT OF MAJ. GEN. EMMETT H. WALKER, JR., DIRECTOR, ARMY NATIONAL GUARD, DEPARTMENT OF THE ARMY

PERSONNEL STRENGTHS

Senator STEVENS. General Walker, do you have a statement?

General WALKER. Yes, thank you, Mr. Chairman.

Since you say you have a copy of my statement and it will be made part of the record, I would like to make a very brief oral statement.

First of all, Mr. Chairman, I am pleased to announce that we now have achieved a strength of over 404,000 and are well on the way of achieving an end strength of officer and enlisted of over 410,000 by the end of September. With these gains certainly now my No. 1 priority is equipping my unit. At the present time I have a shortfall of over 30 percent of the required wartime strength, and much of that is not compatible, but I will report a little later to you we are making progress.

The additional funding that you, the Congress, gave us has really helped our readiness, and we cannot say enough how much we appreciate it.

I am confident, sir, that the Army and the Department of Defense are very conscious of the vital need to equip the Army National Guard because today we have missions that are as high a priority as many of the Army units and in many cases higher. Equipment priorities—the way we are receiving equipment, of course—are based on the missions and the deployment sequence of our units, regardless of whether the unit is active or Reserve.

Mr. Chairman, I want to conclude by saying that we have made great progress in our strength, and I see improvements in our equipment steps. I see schedules of equipment due to come to us in the upcoming years. Of course, it is not coming fast enough as far as I am concerned, but I also realize the great competition for resources in the Department of Defense and the entire Government.

Mr. Chairman, I appreciate the opportunity of being here this morning, and I appreciate the support of the Congress, and I am ready to answer your questions.

Thank you, sir.

Senator STEVENS. Thank you, very much.

[The prepared statement of Maj. Gen. Emmett H. Walker, Jr., follows:]

PREPARED STATEMENT OF MAJ. GEN. EMMETT H. WALKER, JR.

DIRECTOR

ARMY NATIONAL GUARD

INTRODUCTION

As part of the Total Army, the Army National Guard (ARNG) is a key element in the defense of the United States. The citizen-soldier of the ARNG willingly provides his time and effort to be ready should mobilization come. He must have training, equipment, and leadership necessary to help prepare him for whatever his mission may be. The resources provided to the ARNG are applied to this end and this statement will provide an insight as to what has been done in the past and what is necessary this year and in the future. At the onset, it is important to understand that the ARNG must be ready to go to war--today and tomorrow. All ARNG units have valid Total Army mobilization missions and the number of ARNG high priority units is increasing. These units provide essential combat and logistical support needed early in the deployment process. The following sections of this statement will describe the ARNG in the mission areas of organizing, manning, equipping, training, and mobilizing the force--the Army National Guard.

ORGANIZING THE FORCE

On a unit basis, the ARNG provides 33 percent of the combat divisions, nearly 50 percent of the infantry, armor, and field artillery battalions, 57 percent of the armored cavalry regiments, and 25 percent of the combat service support units in the Total Army. Further, the Army National Guard represents approximately 60 percent of the total strength of the Army Reserve Components. There is a continual review of missions and resources within the ARNG to ensure that these resources are organized in the most effective manner. This past year was characterized by organizational changes to selected elements of the ARNG force structure to meet Total Army requirements. Among the most significant was the activation of an additional armor brigade in the Kentucky Army National Guard. This brigade was formed by a consolidation of existing combat and combat support elements, permiting the Army to add combat power at minimum cost and with minimal personnel turbulence. In addition, nuclear, biological, and chemical defense (NBC) companies were added to the 50th Armored Division in New Jersey and the 49th Armored Division in Texas. A combat support aviation company was activated in Hawaii as part of the 29th Infantry Brigade, which is a roundout to the 25th Division. Other activations in the ARNG took place which increased the capability of the Total Army by a medical group headquarters and medical detachment, two ordnance battalion headquarters and eight ordnance companies or detachments, a signal battalion headquarters and two signal companies, six transportation companies and detachments, and four maintenance companies.

In FY 82, the ARNG will continue its structure efforts consistent with Total Army requirements and resource availability. Significant force structure actions programed for FY 82 are the activation of an air traffic control headquarters, a medical battalion headquarters, and an ammunition battalion headquarters with three conventional ammunition companies. Military intelligence aerial surveillance organizations will be reorganized to form a combat electronic warfare intelligence (CEWI) aerial exploitation battalion. Also programmed for activation in FY 82 are a supply and service battalion headquarters, a signal company, a medical clearing company, a military police company, and two engineer detachments, all in Guam.

MANNING THE FORCE

The ARNG has made significant gains since FY 78 when assigned strength declined to a low 344,000. Reversal of this downward trend occurred late in FY 79 and the upswing has continued into the 1980's. With support from the Congress and the nation, the FY 87 wartime required strength of 453,000 will be reached in FY 86. As of the end of FY 81, the ARNG is 88 percent of wartime required, with a paid strength of 389,009. This includes 38,364 officers and warrant officers and 350,645 enlisted personnel. Aggressive recruiting and retention programs, incentive programs, and flexible enlistment and training options, aided by the state of the economy and the world situation, all contributed to the improvements in manning levels. Central to these successes is the professional Full-Time Recruiting Force working in conjunction with Army National Guard members at every level. The enlistment incentives and improved enlistment options also substantially aided FY 81 recruiting efforts. The split training option, for example, contributed significantly to the increase in accessions of high school seniors. The Full-Time Attrition and Retention Force was activated in FY 81 with the placement in the States of 79 personnel dedicated to retention. One-hundred seventy-nine additional retention personnel are scheduled to join units in FY 82. These personnel are tasked to reduce losses of individuals prior to expiration of term of service (ETS), the most serious retention problem facing the ARNG today. Details on accessions, attrition, and retention of specific categories of ARNG personnel are included in the following paragraphs.

The ARNG continued the Selected Reserve Incentive Program (SRIP) which started in FY 78. The intent of the program is to increase personnel readiness and to reduce personnel turbulence through longer service commitments for selected units. The program initially consisted of an enlistment bonus, reenlistment bonus, and educational assistance. In FY 81, bonuses for critical skills were added in an effort to increase accessions to shortage skills and those skills essential to unit effectiveness. With this expansion, 75 percent of the enlisted structure is eligible for enlistment bonuses and 63 percent of the enlisted structure is eligible for retention bonuses. In FY 81, the Inactive National Guard (ING) Bonus, the Affiliation Bonus, and loan repayment programs were added. The Affiliation Bonus for prior service active duty personnel with a remaining military service obligation, pays $25 per month for each month of the remaining obligation. The loan repayment program repays certain Federal guaranteed and/or direct student loans. The loans are repaid at a rate of 15 percent or $500 per year, whichever is greater, for each year of satisfactory service for individuals who enlisted, reenlisted, or extended their terms of service. The ING Bonus was terminated at the end of FY 81.

The effects of the incentive programs are evidenced by the greater strength gains in those units and in those skills authorized the incentives. Efforts to increase and expand the Selective Reserve Incentive Program (SRIP) will continue in order to maximize this valuable recruiting and retention tool. Implementation of a $2,000 Enlistment Bonus for critical skills and expansion to other critically short CMFs was accomplished earlier this fiscal year. A prior service bonus is programed for FY 84 in order to capitalize on the available resource of trained personnel. Enlistments for FY 81 totaled 96,436 or 100.7 percent of the programed objective. Concurrently, nonprior service enlistments reached 52,447 reflecting 103.6 percent of the FY 81 nonprior service objective, while prior service enlistments were 43,989 or 97.4 percent of that objective. In addition to exceeding quantity goals, quality objectives are also being met or exceeded. During this past fiscal year, 13.2 percent of ARNG enlistees scored in test category IV, the lowest category allowed to enlist. This is significantly below the Total Army ceiling of no more than 30 percent of accessions in this category. High school graduates and seniors continue to join the Guard at an increasing rate. In FY 81, the recruiting standard of a minimum of 60 percent high school graduates was implemented. During FY 81, 63.7 percent of ARNG nonprior service accessions were high school graduates. This percentage is expected to improve during FY 82.

The officer accessions program has also been successful. At the start of this fiscal year, the total officer strength of the ARNG reached its highest level ever recorded--38,364. The steady increase in officer strength is attributed primarily to the success of ARNG officer recruitment and accession programs. However, the increase also reflects a greater appreciation throughout the country for the vital mission performed by the National Guard and its importance to both State and national interests. Although officer assigned strength is at a record level, this represents only 93.6 percent of that authorized. Continued emphasis on funding present and future officer procurement initiatives is essential to maintain the upward trend.

The ARNG initiated the Army Medical Department (AMEDD) Officer Accession Program in March 1979 to alleviate the critical shortage of health care professionals. At the start of FY 82, AMEDD officer strength was 5,054 or 85 percent of authorized, and physician strength was 620 or 50 percent of authorized. Implementation of the first phase of the ARNG AMEDD Readiness Procurement Force Plan during FY 81 authorized one AMEDD recruiting officer for each of the medical brigades located in California, Mississippi, and Ohio. These officers are dedicated to the recruiting and retention of health care professional personnel. The AMEDD recruiting and retention program will expand the Full-Time Recruiting Force (FTRF) in FY 82 to a total of 32 AMEDD officers and three enlisted personnel. Other AMEDD positions include unlimited overstrength for selected AMEDD personnel, direct appointment, and medical and dental student commissioning in the ARNG.

Innovative basic branch officer procurement programs such as the Simultaneous Membership Program (SMP) and the Early Commissioning Program (ECP) have enhanced the Reserve Officer Training Corps (ROTC) quality and quantity of accesions to the ARNG. During FY 81, approximately 1,200 ROTC graduates were appointed in the ARNG. The trend is expected to continue with ROTC becoming a principal source of new lieutenants entering the ARNG in the future. The assignment of 100 ARNG officers to ROTC detachments under the Expand the Base (ETB) program and additional funding of ROTC scholarships for the Selected Reserve are significant factors in the current and projected increase in officer accessions through ROTC. ROTC is well on its way to becoming a truly viable source of officer accessions for the Total Army--not just the active force.

Minority strength reflected substantial gains during FY 81. At the end of this past fiscal year, 3,318 officers and warrant officers and 97,061 enlisted personnel, for a total of 100,379 individuals, or 26 percent of assigned strength, were members of minority groups. Female strength in the officer and warrant officer categories increased from 1,357 to 1,653; among enlisted personnel female strength increased from 15,383 to 17,968 during FY 81. Thus, at the end of FY 81, the ARNG included 19,621 or

5.0 percent, female personnel. The ARNG minority accessions objectives remain at achieving minority manning levels at the unit level comparable to the distribution of minorities in the local population.

As strength has increased, so has the requirement for full-time support. The full-time support mission improves unit readiness and provides greater flexibility in meeting varied and changing mission requirements. Full-time support activities accomplish the vital day-to-day missions of the ARNG: command, control, maintenance and other logistical support, and training operations to ensure that the limited time available at unit training assemblies is used in the most productive manner. In FY 83, the full-time support requirement is programed to be 52,159; with only 36,776 personnel projected to be available, there is a shortfall of approximately 30 percent. This shortfall is the result of repeated reductions in civilian end strength and increased requirements due to greater equipment density and complexity, increased unit personnel strength, and increases in the number and type of units in the ARNG force structure.

An issue of continuing concern is that of technician compatibility, wherein technicians who are required to be members of the ARNG as a condition of employment, are assigned to military positions compatible with their technician position. At the end of FY 81, the incompatibility rate for the ARNG was 12 percent. The goal is to reduce this rate across all units to 5 percent by the end of the current fiscal year with no State having more than 15 percent of its technicians in incompatible military positions. These goals are responsive to congressional guidance. Command emphasis and improved management procedures at State level will be necessary to ensure that this goal is met. One action taken at National Guard Bureau level which will enhance this effort is implementation of a policy of granting waivers to compatibility directives only for the purpose of enhancing unit effectiveness. In the past waivers were also granted to allow career advancement of the technician. A monitoring program consisting of periodic reviews of personnel files for compatibility and audits of the individual States has been established to ensure compliance and track progress.

EQUIPPING THE FORCE

To provide the materiel resources necessary to support the ARNG is another major challenge. During FY 81, the status of ARNG equipment was slightly improved. In order to meet full wartime mobilization requirements, the ARNG needed an equipment inventory valued at $11.8 billion. Equipment on hand is valued at $8.1 billion, leaving a shortfall of $3.7 billion from the wartime equipment requirement. In other terms, on hand assets meet 69 percent of the wartime requirement.

It is important to understand that these figures do not represent the cost of providing modern equipment, but rather would provide equipment similar to that presently in ARNG units. The increased funding provided by Congress in the FY 82 appropriation for procurement of howitzers, command post vehicles, bridging, mortar carriers, data processing equipment, 5-ton trucks, and aircraft specifically for the ARNG will make inroads into this shortfall. Additionally, funds to procure 200 M198 155mm towed howitzers dedicated to the ARNG have been identified from Army appropriations.

While most of the equipment on hand in the ARNG is deployable and supportable, some of it is old and significantly less capable than the equipment found in the Active Component. For example, some of the ARNG signal units are equipped with older generation communications equipment that will not fully interface with the newer Army systems. The only air defense capability for the eight ARNG divisions is the 30-year old 40mm "Duster," which has become progressively more difficult to maintain due to age and nonavailability of spare parts. Diagnostic test and maintenance equipment in ARNG maintenance units are designed to support older equipment and cannot accommodate new systems such as the TOW and the M1 tank. In addition to the old equipment in the ARNG inventory, many items are being carried as authorized substitutes, another area that adversely impacts upon training and would impact upon operational effectiveness in the event of mobilization. As an example, 1/4 ton jeeps are being substituted for TOW antitank weapon system tracked carriers. Improvements in this area can be expected as the ARNG is included in the Army force modernization program. Thirty-eight modernization systems are planned for introduction into the ARNG during FY 84 through FY 88. This number has doubled since last year. Included in these systems is equipment ranging from the M1 tank to personal armor systems for ground troops. Growth in the ARNG force modernization program can be expected to continue with a gradual modernization of many items in the equipment inventory. Looking at the current situation, delays in filling unit equipment shortages and in modernizing assets on hand have severely restricted improvement of materiel readiness, and in some cases, adversely impacted on training effectiveness. This is most significant during joint Active/ARNG exercises where ARNG equipment is incompatible with Active Component equipment. This could have a direct impact on the ability of the ARNG to respond quickly to a national emergency. In the event of war, the ARNG would simply have to fight with the equipment it has on hand, irrespective of age or effectiveness. In addition, deployment of ARNG units with equipment not compatible with that found in the gaining command could cause severe operational and support problems.

The ARNG organizational clothing and equipment program has improved but continues as a major problem area. Procurement from the Army stock fund is the single source for specific unit support items such as chemical defense equipment (CDE), medical field sets, tool and test sets, fire direction sets, winter clothing, and camouflage screens. The adequacy of stock fund support is critical to unit mobilization and deployment readiness. Even with additional funding provided in the FY 82 appropriation, the ARNG clothing and equipment shortages, which totaled over $429 million in FY 81, are not programed to be filled until FY 87. Problems in this area are compounded by rapid cost growth and increased sophistication in authorized items of equipment. Of special concern is chemical defense equipment. The shortages in chemical defense equipment have impact on both training and mobilization readiness. At present about 10 percent of the total requirement of $102 million in chemical defense equipment is on hand or on requisition. The availability of this equipment will improve gradually in the FY 83 to FY 88 timeframe, with priority of issue to early deploying units.

ARNG equipment requirements are included in the Army Acquisition Objective (AAO). Issues from the supply system are made in accordance with established Total Army priorities, ensuring that both mobilization readiness and unit training programs are efficiently supported. Priority for issue of the most modern equipment goes to the highest priority, earliest deploying units. Although significant shortages exist, wherever possible, units are provided with sufficient equipment assets to conduct a meaningful training program, regardless of deployment schedules. Much of the heavy tracked equipment assigned to ARNG units is positioned at designated mobilization and training sites. This equipment is available for ARNG use during inactive duty training and annual training at those locations. The concept of positioning unit equipment at designated mobilization and training sites is cost effective and supports both training and mobilization requirements.

The ARNG is automating its logistics management capability on a limited basis. At present, the eight ARNG divisions, 15 separate combat brigades, and three roundout brigades are operating the Division Logistics System (DLOGS). This automated system uses UNIVAC 1005 equipment which is antiquated and difficult to maintain. The UNIVAC 1005 could not be supported in a deployed environment. Extension of the DLOGS to the four remaining brigades has been deferred indefinitely due to the lack of computer hardware. Looking toward modernization, five nondivisional direct support units have received the new Decentralized Automated Service Support System (DAS3). This system automates routine supply management and provides constant inventory visibility. These systems will be extended to an additional 43 ARNG Direct Support/General Support (DS/GS) units during FY 82 and FY 83. Replacement of the DLOGS UNIVAC 1005 with the DAS3 system is scheduled for completion in FY 87.

Aviation support deserves special mention. The ARNG Aviation Logistics Program has proved its effectiveness by exceeding the Department of the Army operational readiness rate for the past 6 years. This is especially significant when consideration is given to the varied aircraft systems supported by the ARNG maintenance program. At present, the Army National Guard is authorized a total of 2,739 aircraft, including a 10 percent operational readiness float. The bulk of the fleet is comprised of utility, observation, and attack aircraft. Of the 2,580 aircraft on hand, only 1,822 are first-line aircraft, comparable to those found in the Active Component. For example, of the 409 attack helicopters authorized, only 26 are modernized AH-1S TOW Cobras. The remaining attack aircraft are older aircraft possessing limited mission capability. During FY 81, 13 AH-1S modified "TOW Cobra" attack helicopters were transferred from the Active Component into the ARNG aircraft inventory. In addition, 12 newly produced, fully modernized AH-1S aircraft were received directly from the factory. These 12 aircraft were the first new AH-1S aircraft to be produced for, and issued to, the ARNG. During FY 82, seven additional AH-1S aircraft are scheduled to be transferred from the Active Component. Eight of the ARNG attack helicopter companies and six of the air cavalry troops are projected to have the resources necessary to accomplish mission-related training by the end of FY 83; however, many other units will not have the AH-1S system and must continue to train with nondeployable aircraft. An additional problem faced by the ARNG is the introduction of new aircraft into the Active Component without introduction of th same equipment into the ARNG. A limited number of new aircraft are required to train ARNG high priority maintenance units to ensure that they can support the AC in the event of mobilization. An initial effort to assist in this area will be the issue of four UH-60s to the ARNG during FY 83. Additionally, as a result of FY 82 congressional action, 12 additional new production AH-1S aircraft and six C-12D aircraft will be procured for the ARNG.

A related issue to equipping the force is that of providing facilities for use by ARNG units. The ARNG operates, through the various States and territories and the District of Columbia, 2,821 armories, 1,635 logistics and maintenance facilities, 270 training sites, and over 200 other facilities. Under the provisions of the United States Code, support for these facilities varies from full Federal funding of training sites to full State funding for armory operation and maintenance. At the start of this fiscal year, there was a federally funded Backlog of Maintenance and Repair (BMAR) amounting to $55.6 million. This was an increase of $11.3 million over FY 81. Funds are programed to reduce BMAR to $15.2 million, the ceiling established by Congress in 1978, by FY 87.

In addition to these maintenance and repair requirements, military construction projects represented a backlog of $740 million in FY 81. This backlog is expected to grow to $800 million by the end of this fiscal year. The principal reasons for this situation are increasing requirements for ranges and construction cost escalation. With construction costs escalating at approximately 10 percent a year, an appropriation of $80 million per year would be required to hold the backlog constant, even without additional projects. The budget request for the FY 82 military construction program was $47 million. Congress added $20.7 million providing a total of $67.7 million for FY 82, which is still much less than the required $80 million. The FY 83 construction request is $51.1 million, or only 65 percent of the FY 82 appropriation, allowing further growth of the construction backlog.

TRAINING THE FORCE

The core of the ARNG training program is the training assembly. Each member of the Guard is scheduled for 48 training assemblies. In addition to these assemblies are a number of innovative, highly productive training programs; these are highlighted in the following paragraphs.

The Active Component/Reserve Component (AC/RC) Partnership Program, which includes all ARNG divisions, separate brigades, armored cavalry regiments, aviation attack helicopter companies, and air cavalry troops was implemented in 1980 to solidify the mutual support relationship already established. The Partnership Program is a year-round effort whereby AC units provide training support, evaluation, and assistance to their designated ARNG partner units. Another program is Affiliation Training which continues to be an outstanding vehicle for improving the readiness of selected ARNG units through dedicated support by AC units. This program is composed of three elements. The first is Roundout, wherein ARNG units are designated to raise AC divisions short units to desired structure. The ARNG has four brigades and six battalions designated as roundout affiliates. The second program, Augmentation, identifies ARNG units which will increase the combat power of AC divisions or brigades that have a standard configuration. The ARNG has five brigades designated as augmentation affiliates. The last program is Mobilization and Deployment Capability Improvement (MDCI). In this program, ARNG units that require dedicated AC assistance to meet mobilization or deployment schedules are affiliated to improve their readiness condition. ARNG units in this category do not deploy with the AC sponsors. The ARNG presently has 39 battalions and 71 company-size units designated as MSCI affiliates. During the past year, this program has been expanded with the addition of eight ARNG battalions and 55 company/detachment size units. These units were selected because they are scheduled for early deployment in the event of mobilization.

Department of the Army has developed procedures which officially establish a direct link between all Army units and their wartime chain of command. This initiative, the Army CAPSTONE program, is designed to improve wartime planning and preparation through the organization and training of a force structure designed to meet a particular contingency mission. Under CAPSTONE, the wartime chain of command, probably wartime mission, and probable area of deployment are designated for each unit. Training readiness improvements continue, designed to compliment CAPSTONE. For example, in 1982, 108 ARNG units will participate in approximately 2 weeks of intensive training with overseas commands. This realistic deployment training is the most effective way to fully expose Guard units to their NATO mission during a 2-week training period. This type of training supports the objective of providing Guard soldiers realistic, mission-oriented training, performed in the geographic area of probable employment with AC units. Further, the success attained by ARNG units in responding to mission requirements, immediately upon arrival in an overseas area, is a vivid example to the AC gaining commands and NATO allies of the operational effectiveness of ARNG units. This program provides opportunities for exercising assembly, movement/deployment, and employment. This is the Total Army in action. In coordination with the AC, the ARNG has developed a 5-year schedule for participation of units in overseas deployment training.

ARNG participation in Joint Training Exercises (JTX) continues to provide units with training opportunities that are not normally available in a unit training environment. ARNG combat, combat support, and combat service support units are tasked to perform realistic missions alongside their active counterparts in a joint service environment that challenges them to produce under realistic and stressful conditions. During FY 80 and FY 81, the ARNG deployed a complete infantry battalion to Europe, where they drew POMCUS stocks and participated in JTX REFORGER. The success of this exercise proved the capability of the ARNG to respond to its deployment mission direct from home station. In coordination with AC, ARNG has developed a 5-year exercise schedule for participation of major ARNG units in the JCS joint exercise program.

At the local levels, training of individual soldiers, leaders, staffs, and units continue to focus on increased use of local training sites and taking advantage of training devices and techniques, such as scaled mini-ranges. Travel time reductions plus improved performance-oriented training should provide enhanced readiness and increase retention and recruiting. Where local training is not possible or cost effective, travel funds are necessary to move these units to appropriate training sites. An on-going Training Site Requirements Study (TSRS) is being conducted to determine the types of facilities necessary for expanded use of training sites.

Military education of ARNG personnel provides a means for the individual to acquire new professinoal skills, enhance existing skills, and to be prepared to accept greater responsibilities in more complex job assignments. In FY 82, military education of the ARNG will continue the growth of past years with increased participation by officer and enlisted personnel in Active Army service schools, DOD schools, Army Area schools, USAR schools, and unit schools. This past year, 60,991 ARNG personnel enrolled in these schools, representing an increase of 6,209 over FY 80. Over 70,000 ARNG personnel are expected to attend this type of training in FY 82. The ARNG Undergraduate Pilot Training (UPT) quotas increased from 90 in FY 81 to 140 students in FY 82, with a rampup to 205 in FY 85 and after. To enhance pilot tactical training in the States, the U.S. Army Aviation Center (USAAVNC) is conducting a special Night Hawk/Night Vision Goggles method of instruction course for ARNG Instructor Pilots (IP). Development of this IP cadre is essential to meet Aircrew Training Program premobilization objectives of a total day and night aviation combat and combat support capability. Since the introduction of the Continuing Health Education (CHE) program in the ARNG, the number of students, primarily doctors and nurses, has increased from 18 in FY 78 to 363 in 1981. FY 82 student population will well exceed 400. This program is seen as a major factor in the recruitment and retention of medical personnel.

The National Guard Bureau conducted three new courses of instruction: The Unit Size Company Commanders Course; the Teach, Advise, and Counsel (TAC) Officer Training Program; and the Direct Appointment Orientation Course at the National Guard Professional Education Center (NGPEC) at North Little Rock, Arkansas. The Unit Size Company Commanders Course is designed to develop managerial and leadership skills and techniques which are essential to successfully command a company-size unit. The purpose of the TAC Officer Training Program is to ensure standardization of leadership aspects of the ARNG State officer candidate schools. The Direct Appointment Orientation Course provides officers and warrant officers who have received a direct appointment, with an orientation of basic principles and concepts of the United States Army system of operation.

The Puerto Rican English Technical Language School (PRETLS) will continue in FY 82 with funding from the National Guard Bureau. The school is designed to provide elementary and intermediate English language instruction to Puerto Rican ARNG trainees. It also provides pre-basic training to the student. The graduate of this course is expected to enter basic training within 30 days. Attrition among graduates of this program has been significantly reduced during initial entry training.

State military academies conduct NCO schools, with an enrollment of over 15,000 enlisted personnel. The State officer candidate schools continued to be the largest source of junior officer accessions for the ARNG, graduating 1,356 students in FY 81 and projected to graduate 1,387 in FY 82. The ARNG provides students to the Combined Arms and Service Staff Schools (CAS 3) at Fort Leavenworth, Kansas. Participation began in FY 81 with seven ARNG personnel enrolled. Thirty-five personnel are expected to attend during this fiscal year.

Two areas which continue to receive special emphasis are those of nuclear, biological, and chemical (NBC) training and the Key Personnel Upgrade Program (KPUP). Action was taken early in FY 81 to accelerate the manning of unit level NBC positions, resulting in 85 percent, officer and enlisted, of the chemical specialist positions filled at the end of FY 81. Concurrent with supporting chemical defense training, there is a requirement to provide contingency chemical defense equipment (CDE) for high priority units. The ARNG goal is to provide contingency items by FY 83 for all early deploying units.

The Key Personnel Upgrade Program (KPUP) provides the opportunity for selected ARNG officers and NCOs to train with an AC counterpart for the purpose of improving the individual's military skills and the training readiness of his units. This program was initiated this past fiscal year with 200 personnel participating. An additional $3.0 million was appropriated to support KPUP in FY 82. This will allow key personnel from high priority units and combat units to train with an AC counterpart. Eighteen million dollars is programed for FY 83. This will support the objective of increasing participation to approximately 2,000 personnel. Expanded participation will allow for small units (squads, sections, etc.) to train with an AC unit during field training exercises. In addition to KPUP, funds are provided in the FY 83 budget submission for headquarters staff training, travel for environmental training and 3-week annual training for participation in joint readiness exercises. These training initiatives will provide additional training time for high priority ARNG units.

In the area of aviation training, the ARNG initiated the standardized, nationwide implementation of the Aircrew Training Program. The program phases in an ARNG capability to meet premobilization objectives and a capability to train to full mission capacity upon mobilization. In addition, premobilization aircrew qualification/proficiency will be standardized among like units with identical premobilization missions. Expansion of the Army's Flight Simulator Program to all States in FY 82 will provide the means for ARNG aviators to receive training UH-1H emergency condition recognition training. Prior to FY 82, the program was restricted to aviators located within 200 miles of the simulator, but the positive feedback and documented emergency action improvements supported the expansion of the simulator program to include all aviators assigned to UH-1H cockpit positions.

Guard aviation provides approximately one-third of the Total Army aviation program; ARNG aviators are programed to log more than 28,000 Aircrew Training Manual (ATM) creditable hours in flight simulators during FY 82. Ninety-one percent of the 293,375 hours in the FY 81 program were applied toward aircrew training requirements in conjunction with unit mission support. Briefly stated, ARNG aviation remains cost effective in the utilization of flying hours to train aviators and units.

MOBILIZING THE FORCE

Mobilization preparedness represents the ultimate objective of all the efforts of the ARNG. The Chief, National Guard Bureau, through the Director, Army National Guard, is responsible for producing effectively manned, trained, and equipped units prepared for mobilization. Selected ARNG units are now assigned POMCUS, are included in the Rapid Deployment Force, and are being considered for direct deployment. This is in addition to providing numerous essential forces to support the major plans of the Army. This continued and increased reliance on the ARNG has underscored the need to streamline the mobilization process, increase mobilization awareness and improve response capabilities.

To meet these challenges, the ARNG has actively participated in the development of new mobilization planning guidance and is in the process of reorganizing the State Area Commands (STARC) for more effective execution of both pre-and post-mobilization missions. Various exercises have been conducted or are scheduled to evaluate mobilization readiness. One such exercise is the Readiness for Mobilization Evaluation (REMOBE). REMOBE is conducted by the STARC for selected high priority units in each State. Major objectives of the exercise are evaluation of the unit capability in mobilization planning, readiness, and the impact of readiness improvements. During FY 81, 22 ARNG units participated in these exercises and additional participation is planned for FY 82. A second exercise is the Mobilization Deployment Exercise (MODEX), also conducted by the STARC. It is designed to enhance the overseas deployment training program. Selected ARNG units deploying overseas complete a mobilization capability evaluation and certification for deployment prior to departure. During FY 81, 12 ARNG units tested this program for feasibility and impact. The results were overwhelmingly positive and all units scheduled for overseas deployments during FY 82 will be encouraged to conduct a MODEX. Further, the JCS biennial mobilization exercise (MOBEX) is in the initial planning stages. The primary thrust of this exercise for the ARNG is expanded participation of the STARC, unit participation at the mobilization stations and an evaluation of mobilization plans and execution capability.

SUMMARY

The ARNG plays a central role in our national defense. The capability of the citizen soldier to respond to the most demanding wartime missions is a matter of record. This status report has provided a description of what the ARNG is doing to ensure that the resources necessary to allow him to respond in the most effective, efficient manner are available. Much progress has been made in recent years. With the support of Congress, this momentum will continue into the future.

ARMY NATIONAL GUARD BUDGET

($ in Millions)

National Guard Personnel, Army

The FY 83 National Guard Personnel, Army (NGPA) budget request of $1,681 million provides pay and related expenses for ARNG personnel. This request supports an end strength of 417,019. The number of Army National Guardsmen on full-time active duty increases and modest growth is achieved in command post exercise training. The Guam National Guard is fully supported in FY 83. New initiatives in school training are primarily for increased aviation training and noncommissioned officer training. The incentives program requirement, which provides enlistment and reenlistment bonuses, is $52 million.

TABLE 1

U.S. Army National Guard
(End Strength)

	FY 81 Actual	FY 82 Estimate	FY 83 Request
Pay Group A	348,865	353,002	369,147
Pay Group F	17,379	19,600	20,000
Pay Group P	12,713	13,975	13,453
Full-Time Active Duty	10,052	11,439	14,419
TOTAL	389,009	398,016	417,019

TABLE 2

National Guard Personnel, Army
($ in Millions)

	FY 81 Actual	FY 82 Estimate	FY 83 Request
Pay Group A/P	749	789	952
Pay Group F	166	175	206
School Training	43	50	68
Special Training	26	44	75
Administration/Support	191	272	380
TOTAL PROGRAM	1,175	1,330	1,681

OPERATION AND MAINTENANCE, ARMY NATIONAL GUARD

The funding categories of the FY 83 Operation and Maintenance, Army National Guard (OMARNG) appropriation (below) support the projected National Guard end strengths depicted in Table 1. This request also supports 22,357 civilian employees.

TABLE 3

Operation and Maintenance, Army National Guard
($ in Millions)

	FY 81 Actual	FY 82 Estimate	FY 83 Request
Training/Operations	167	139	136
Depot Maintenance	50	52	56
Logistical Support	602	749	756
Medical Support	6	8	8
Base Operations	60	72	89
Recruiting	10	12	13
Management Support	53	58	66
TOTAL PROGRAM	948	1,090	1,124

MILITARY CONSTRUCTION, ARMY NATIONAL GUARD

The FY 83 request for Military Construction, Army National Guard (MCARNG) (below) provides for 43 major projects. Included in the major projects are 20 armories, four aviation facilities, eight training facilities, eight vehicle maintenance facilities, two logistics facilities, and one motor vehicle storage building.

TABLE 4

Military Construction, Army National Guard
($ in Millions)

	FY 81 Actual	FY 82 Estimate	FY 83 Request
Armory	12	29	16
Nonarmory	21	32	17
Minor Construction	7	4	15
Planning and Design	2	3	3
TOTAL	42	68	51
TOTAL ALL APPROPRIATIONS	2,165	2,488	2,856

MAJOR GENERAL EMMETT H. WALKER, Jr.
DIRECTOR, ARMY NATIONAL GUARD

Major General Walker enlisted in the United States Army in December 1942, attended Officer Candidate School at Ft Benning, GA, and was commissioned a second lieutenant, Infantry, on 23 May 1944. He served with the 95th Infantry Division in the European Theater during World War II and was separated from active service in March 1946.

On 22 May 1949, General Walker joined the Mississippi Army National Guard as a first lieutenant. He was promoted to captain on 3 January 1951.

General Walker was ordered to active duty on 16 January 1951 with the 31st Infantry (Dixie) Division during the Korean Conflict and served with the Far East Command Headquarters in Japan until 25 September 1952.

General Walker returned to the Mississippi Army National Guard where he served in several positions. Promotion to major came in February 1955. In December 1961, General Walker was promoted to lieutenant colonel and took command of the 4th Howitzer Battalion, 114th Field Artillery. He became commander of the 631st Artillery Group and was promoted to colonel on 19 February 1968. Appointed Assistant Adjutant General for the Mississippi Army National Guard on 16 February 1972, he was federally recognized as brigadier general, Adjutant Generals Corps, on 4 August 1972.

General Walker was appointed brigadier general, Army of the United States, and ordered to active duty as Special Assistant to the Director, Army National Guard, National Guard Bureau, on 15 October 1976. He was reassigned as Deputy Director, Army National Guard, National Guard Bureau, and federally recognized as brigadier general of the line effective 17 November 1976.

He was appointed as the Director of the Army National Guard on 16 August 1978 and promoted to the grade of major general on 22 August 1978.

General Walker has been awarded the Silver Star, Legion of Merit, Bronze Star with V Device, Meritorious Service Medal, Army Commendation Medal, Good Conduct Medal, and numerous other decorations.

ARMY RESERVE

STATEMENT OF MAJ. GEN. WILLIAM R. BERKMAN, CHIEF, ARMY RESERVE, DEPARTMENT OF THE ARMY

MISSION OF ARMY RESERVE

General STEVENS. General Berkman.

General BERKMAN. Mr. Chairman, members of the committee, I welcome this opportunity to appear on behalf of the Army Reserve program. On behalf of all members of the Army Reserve, I want to express appreciation for the support that you have provided to improve the strength and readiness of the Army Reserve.

A statement has been submitted for the record, and with your permission I would just like to make a brief additional statement.

PERSONNEL STRENGTHS

The Army Reserve is an essential part of the total Army, and it consists of over 440,000 men and women. About 230,000 are members of the troop program units, and an additional 200,000-plus are in the Individual Ready Reserve. Army Reserve troop program units constitute 34 percent of the Army's tactical support increment, 23 percent of the general support increment, and 15 percent of the Army's nondivisional combat and special theater force increment. Many of these forces are of high priority, and a substantial number are included in the Army's portion of the Rapid Deployment Force.

Army Reserve unit structure is not a mirror image of the active component. Many Army Reserve units are early deploying. Approximately one-fifth of the deployable Army Reserve units would be committed within 30 days of mobilization; 57 percent of Army Reserve units will deploy between 30 and 60 days, and practically all would be deployed within 90 days of mobilization.

Significant success has been achieved in efforts to increase the strength of Army Reserve units. From a low point of 186,000 in 1978 troop program unit strength has grown steadily until by fiscal year 1981 it reached a level of 223,000, or 86 percent of authorized strength. It is anticipated that the strength will be over 240,000 by the end of this fiscal year, which amounts to approximately 90 percent of authorized strength.

Monetary incentives have been an important ingredient to strength growth even though they are currently available to only 73 percent of the force.

This budget also supports an increased level of full-time support personnel for the Army Reserve. Historically the Army Reserve has had the lowest percentage of full-time personnel of all of the service Reserve components. A step in improving this percentage is in the 1983 budget, which will increase full-time manning personnel by approximately 1,500 individuals.

EQUIPMENT SHORTAGES

Equipment shortages adversely affect Army Reserve readiness as well as the total Army. The dollar value of Army Reserve shortages compared to wartime requirements is approximately $4 billion. Another way of stating it is that the Army Reserve by dollar value has approximately 33 percent of the wartime required level of equipment on hand.

CAPSTONE PROGRAM

Mission-oriented training of units has been focused under the Capstone program that orients all Reserve component units to the wartime mission. It is an initiative that consequently focuses training and planning on wartime missions as well.

INDIVIDUAL READY RESERVE (IRR)

The Individual Ready Reserve is also an important part of the Army Reserve. The IRR, which reached a low of 144,000 in early 1978, increased to over 200,000 by the end of fiscal year 1981. The increase resulted from policy changes that require longer service in the IRR as well as requiring more individuals to serve in the IRR rather than in the Standby Reserve. Nevertheless, that still is substantially short of requirements.

INDIVIDUAL MOBILIZATION AUGMENTEE (IMA)

The individual mobilization augmentee is a significant initiative to improve individual readiness and augment the active component. IMA personnel, members of the Selected Reserve, are assigned to positions in Active Army units and organizations and are, as selected reservists, subject to the 100,000 call-up authority of the President.

In conclusion, there has been improvement in the Army Reserve. The fiscal year 1983 budget request of approximately $1.9 billion builds upon those accomplishments in our effort to achieve our readiness goals.

Mr. Chairman, that concludes my statement.

Thank you.

Senator STEVENS. Thank you.

[The prepared statement of Maj. Gen. William R. Berkman follows:]

PREPARED STATEMENT OF MAJ. GEN. WILLIAM R. BERKMAN

CHIEF

ARMY RESERVE

> "The Total Army is made up of mutually supporting and mutually dependent components: the Active Army, the Army National Guard, and the U.S. Army Reserve...."

John O. Marsh, Jr.
Secretary of the Army

E. C. Meyer
General, U.S. Army
Chief of Staff

1982

Mr. Chairman and Members of the Committee

I am honored to once again present the Army Reserve program. I also welcome this opportunity, on behalf of all members of the Army Reserve, to express appreciation to the members of this committee for providing measures to improve the strength and readiness of the Army Reserve.

INTRODUCTION The Army Reserve is an essential part of the Total Army. It is one of the mutually supporting and mutually dependent components of the Total Army. The Army Reserve currently consists of over 443,000 men and women. Members of Army Reserve troop program units number over 230,000. In addition, there are approximately 213,000 members in the Individual Ready Reserve (IRR) not assigned to troop program units. To accomplish its peacetime mission of deterrence, the Total Army requires sufficient pretrained individual Reservists as well as Army Reserve units that are ready, equipped and capable of performing wartime missions. Should deterrence fail, those units and individuals will be required, as part of the Total Army, to defeat any enemy in any environment.

Army Reserve units are primarily combat support, combat service support and general support. They also include significant combat forces. These forces are required to provide a balanced Total Army. Examples of the contribution of Army Reserve units to the Army's structure are indicated in Figure 1.

FIGURE 1

EXAMPLES OF US ARMY RESERVE UNITS AS A PERCENT OF THE TOTAL ARMY UNIT STRUCTURE*

TYPE UNIT	% OF ARMY STRUCTURE REQUIREMENTS
TRAINING DIVISIONS	100%
TRAINING BRIGADES	100%
RAILWAY UNITS	100%
JUDGE ADVOCATE GENERAL UNITS	100%
CIVIL AFFAIRS UNITS	97%
PSYCHOLOGICAL OPERATIONS UNITS	89%
SMOKE GENERATION COMPANIES	85%
QM POL SUPPLY COMPANIES	78%
ARMY HOSPITALS (MTOE)	62%
TERMINAL SERVICE/TRANSFER COMPANIES	61%
SUPPLY AND SERVICE CAPABILITY	59%
QM POL OPERATING COMPANIES	56%
CONVENTIONAL AMMUNITION COMPANIES	56%
PATHFINDER UNITS	43%
WATERCRAFT UNITS	43%
CHEMICAL DECON COMPANIES/DET	42%
MEDICAL UNITS (OTHER)**	39%
NON-DIVISIONAL COMBAT SUPPORT AVIATION COMPANIES	38%
WATER SUPPLY, PURIFICATION, WELL DRILLING	37%
MAJOR LOGISTICAL UNITS***	35%
TRUCK COMPANIES	29%
COMBAT ENGINEER BATTALIONS	26%
SPECIAL FORCES GROUP	25%
NON-DIVISIONAL BRIDGE COMPANIES	24%
NON-DIVISIONAL MAINTENANCE (DS/GS)	21%
SEPARATE BRIGADES	11%
FIELD ARTILLERY BRIGADE, HHD	9%
FIELD ARTILLERY BATTALIONS	8%
INFANTRY BATTALIONS**	7%
MECHANIZED INFANTRY BATTALIONS**	2%
TANK BATTALIONS**	2%

*Current structure as of January 1982
**Includes Organic and Separate Elements
***Theater Army Area Command/Corps Support Command Headquarters Company and Material Management Center

The Individual Ready Reserve consists of pretrained individuals who are required for specific mobilization positions, act a replacements to fill units of the Total Army, and serve as cadre for additional units required upon mobilization.

The Army Reservist is a part of our long and proud national tradition of citizen soldier whose service contributes to our national security. The Army Reservists brings an extra dimension to that service because the Reservist is also meeting the requirements for success in a chosen civilian career field. The Reservist's military training to achieve individual and unit readiness takes place on weekends and during two weeks annual training periods. This service is often performed at the expense of time with family matters or other civilian pursuits. For some, Reserve participation may mean attending scheduled training assemblies for pay that is less than that available for a part-time job. Reservists travel at their own expense to Reserve centers for training assemblies and ofter contribute their time to Reserve programs in excess of paid training assmeblies.

We can all take pride in the dedicated men and women who serve our country in the Army Reserve. As part of the Total Army, they must be ready to go to war — today and tomorrow. They contribute to the Total Army's mission of deterrence and safeguarding our security. They are fellow Americans who deserve the support of their employers, family and fellow citizens.

ORGANIZING THE FORCE Each element of the Total Army contributes to the whole, resulting in an interdependence of all components to form an Army which must be capable of performing its peacetime and wartime missions. The Total Army can be divided into increments: the division increment, the non-divisional combat increment, the tactical support increment, the special theater incremant, and the general support increment. The number and types of units in the Total Army are determined by the requirements for a balanced 24-division force, including necessary support. That force is then allocated to the Active and Reserve Components.

Army Reserve units constitute 34 percent of the Army's tactical support increment, 23 percent of general support force increment, and 15 percent of the Army's non-divisional combat and special theater force increment (Figures 2 and 3).

FIGURE 2

ARMY RESERVE TROOP PROGRAM UNIT CONTRIBUTION TO TOTAL ARMY WARTIME UNIT STRUCTURE

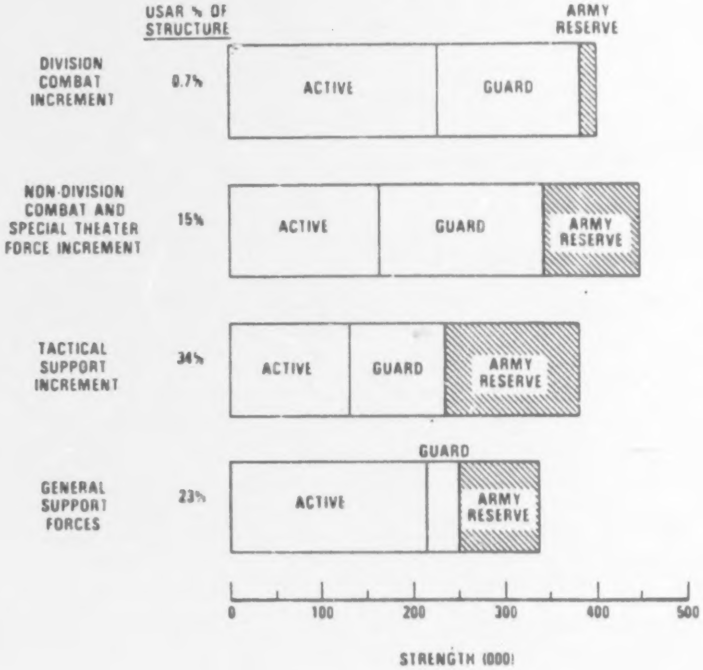


FIGURE 3

TYPE US ARMY RESERVE UNITS

DIVISIONAL FORCE INCREMENT

- INFANTRY BATTALION
- TANK BATTALION
- ENGINEER BRIDGE COMPANY

NON-DIVISIONAL COMBAT AND SPECIAL THEATER FORCE INCREMENT

- 3 SEP INF BDES
- SPECIAL FORCES
- PATHFINDER
- ARTILLERY
- ENGINEER
- AVIATION

TACTICAL SUPPORT INCREMENT

- WELL DRILLING
- WATER SUPPLY
- TRANSPORTATION
- CIVIL AFFAIRS
- QUARTERMASTER
- PSYCHOLOGICAL OPERATIONS
- MAINTENANCE
- FIREFIGHTING
- JUDGE ADVOCATE GENERAL
- GRAVES REGISTRATION
- MEDICAL
- AMMUNITION
- CHEMICAL
- SIGNAL
- ENGINEER
- FINANCE
- AVIATION
- AMBULANCE
- MILITARY POLICE
- PETROLEUM SUPPLY
- INTELLIGENCE
- PORT CONSTRUCTION

GENERAL SUPPORT INCREMENT

- TRAINING DIVISIONS
- TRAINING BRIGADES
- GARRISONS
- HOSPITALS
- RAILWAY
- RECEPTION STATIONS
- TRANSPORTATION COMMANDS
- SCHOOLS
- CIVIL PREPAREDNESS SUPPORT DETACHMENTS
- MANEUVER AREA COMMANDS
- MANEUVER TRAINING COMMANDS

In addition, the Individual Ready Reserve constitutes the essential mobilization pool of pretrained individuals providing resources across the Total Army.

Army Reserve units are included in the high priority Army assets for NATO and Korea. In addition, the Army Reserve contributes units as part of the Army's portion of the Rapid Deployment Joint Task Force. They include Quartermaster, Petroleum Supply, Transportation, Medical, Engineer, Ordnance and Civil Affairs units.

The Army Reserve unit structure is neither a mirror image of the Active Component, nor of the other Reserve Component, the Army National Guard. Army Reserve units support Active Component as well as Reserve Component structures. Consequently, there are early deploying units in the Army Reserve. Approximately one-fifth of the deployable Army Reserve units will be committed within 30 days of mobilization. Some of these units have deployment dates so early that they must deploy direct from their home stations instead of reporting first to a mobilization station. Fifty-seven percent of Army Reserve units will deploy between 30 and 60 days after mobilization, and practically all will be deployed within 90 days of mobilization.

Force structure plans over the next five-year period call for the activation of approximately 434 units in the Army Reserve. The types of units scheduled for activation, which are primarily combat support and combat services support, include: engineer, medical, quartermaster, transportation and military intelligence. During the same period, some units no longer required will be inactivated and/or reorganized to form the bases of the new units.

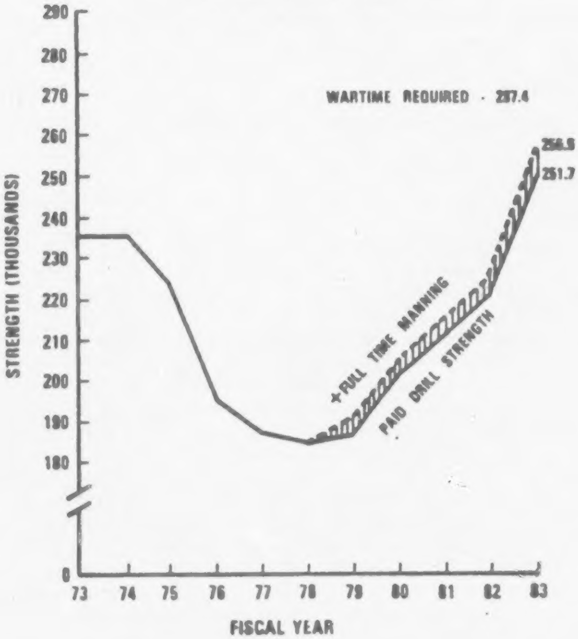
The Fiscal Year 83 budget supports activation of three divisional Combat Electronic Warfare Intelligence (CEWI) battalions and five separate CEWI companies in support of corps and brigade operations. These units are tailored to meet the anticipated threat and combat environment. They are essential to enable the commander to see the battlefield and employ his combat forces to the greatest advantage. In FY 84 an additional two divisional CEWI battalions are planned for activation along with the reorganization of one aviation unit to a corps level CEWI aviation unit. Also in FY 84, two CEWI Group Headquarters will be activated along with an additional corps-level CEWI aviation unit.

As part of the Army Chemical Warfare (CW) efforts, the budget supports aviation of three Chemical Decontamination Companies and two Smoke Generator Companies in FY 83. FY 84 Troop Program Guidance further provides for activation of one Chemical Decontamination Company, two additional Smoke Generator Companies, one Decontamination Detachment, and one Smoke Generator Battalion Headquarters.

MANNING THE FORCE Bringing Army Reserve units up to authorized strength continues to be a matter of high priority and challenge. This is an area of significant success. The strength of the Army Reserve in the troop program units reached a low point in 1978; but it has steadily increased since then (Figure 4).

FIGURE 4

ARMY RESERVE TROOP PROGRAM
UNIT END STRENGTH



Troop program unit end strength was 185,800 in FY 78, 189,900 in FY 79, 203,957 in FY 80 and 223,045 in FY 81. By the end of FY 81, the Army Reserve troop program unit strength was at 86 percent of that authorized for FY 81. Troop program unit strength is projected to be approximately 241,000 in FY 82; a marked improvement but still approximately 45,000 short of wartime requirements.

This success in increasing troop program unit strength is attributable to improved retention and meeting the goals of the number of recruits (prior service and non-prior service) by US Army Recruiting Command working with Army Reserve units. The Army Recruiting Command provides middle management for full-time Army Reserve recruiters.

Programs supported by Congress also contributed substantially to the improvement in strength. Monetary incentives were first initiated for higher priority units of the Army Reserve in December 1978. These incentives have had a two-fold effect: an increase in Army Reserve enlisted paid drill strength each year since initiation in FY 79; and the channeling of new members into high priority units. The incentives currently include an enlistment bonus of $1,500 or educational assistance of up to $4,000 for qualified high school graduates who enlist in high priority units for six years. In addition, bonuses are available for enlistment in certain critical skills in any unit. These skills include CMF 11-Infantry, 12-Combat Engineer, 13-Cannon Crewman, 16-HAWK Missle Crewman, 19-Armor, 91-Medical and 95B-Military Police. In FY 81, this program resulted in 5,590 soldiers enlisting for $1,500 cash bonus and 3,490 soldiers enlisting for the education assistance option.

A variable enlistment bonus was implemented on 1 October 1981. For enlistment in a designated unit, either $1,500 cash bonus or $4,000 educational assistance is available. For selected skills a $2,000 cash bonus or $4,000 educational assistance is available. A one-time only conversion either way between the cash bonus and educational assistance is authorized. Only High School Diploma Graduates and individuals who test as Mental Category III, or higher, are eligible to enlist for these incentives.

These successful programs for both enlistment and reenlistment have expanded since June 1980 by adding an additional 304 high priority units to the program. With these new units, approximately 51 percent of all units of the Army Reserve force are authorized for both enlistment and reenlistment incentives (73 percent of authorized enlistment incentives only).

Another salutary effect of these incentives is improved retention in units. Over 7,400 bonus eligible soldiers reenlisted for the reenlistment bonuses in FY 81. In addition to the bonus program, the alternative training program allows an individual to enlist in the USAR and take Basic Training one year, return to civilian school (high school or college) and return the following year for advanced individual training.

In FY 82, these successful incentive programs are being supplemented by extending the enlistment incentives and reenlistment bonus to enlisted members with chemical and some military intelligence skills in Army Reserve units not previously authorized incentives.

We also have an affiliation bonus that provides for accession of individuals who have completed their active duty obligation and agree to serve any remaining military service obligation with a selected Reserve troop program unit. The bonus pays the equivalent of $25 for each month of affiliation.

These extensions of the incentives programs, coupled with the new initiatives, are expected to contribute to a projected paid drill and trainee end strength of 251,680 by FY 83. Figure 5 shows the Army Reserve accessions program from FY 79 to FY 83.

The projected FY 83 paid drill strength of approximately 252,000 represents an increase of about 66,000 since FY 78. However that figure together with full time personnel with units is still approximately 36,000 individuals short of wartime required strength. Under current programs and projections it is expected that the required troop program unit strength levels will be reached by FY 86.

Women members of the Army Reserve are important and valued members who serve in a wide variety of military occupational specialties. Approximately 91% of the military occupational specialties in the Army Reserve are available to women. Participation by women in Army Reserve units continues to increase as shown in Figure 6.

FIGURE 5

ARMY RESERVE ENLISTMENTS (IN TROOP UNITS)

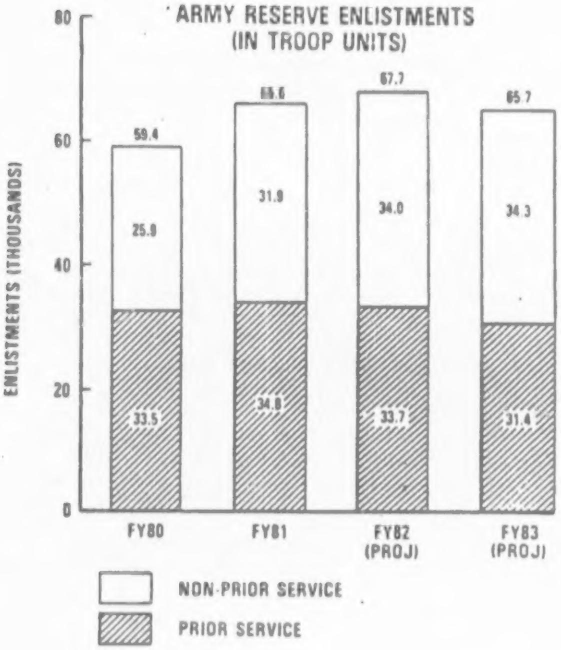
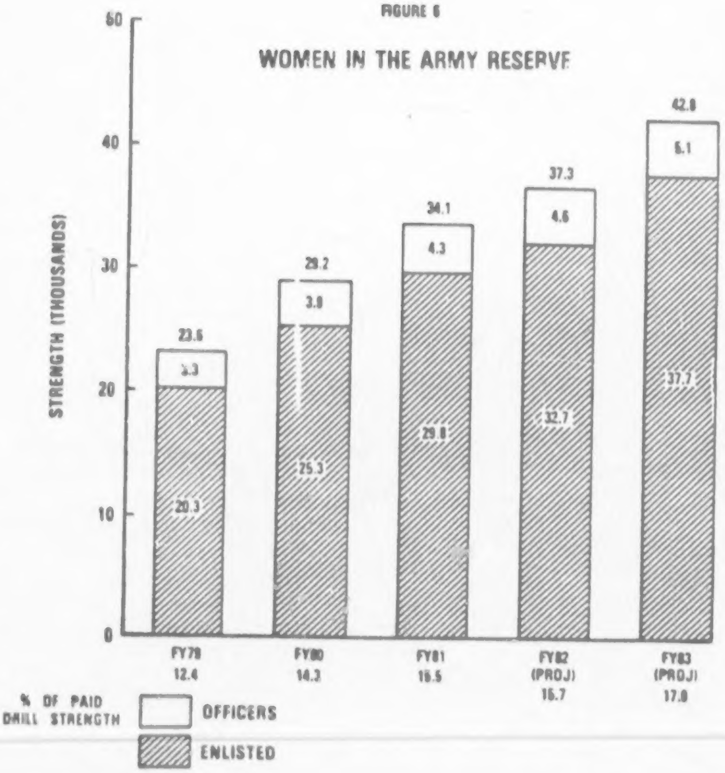


FIGURE 6

WOMEN IN THE ARMY RESERVE



More than 34,000 women are members of Army Reserve units. This represents 15.5 percent of the members of Army Reserve units. The FY 83 projection is 42,785 women Reservists, which is 17 percent of the force. The long-term programmed strength is 51,154 women, comprising about 17 percent of the Army Reserve troop program unit personnel.

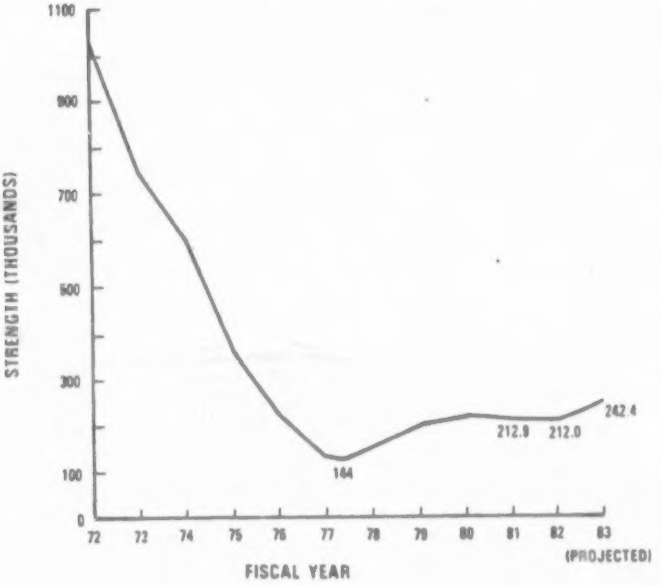
The proportion of the black minority membership in the Selected Reserve is approximately 23 percent. Minorities other than black comprise 4.6 percent of the force. Of these blacks and other minorities, 21.2 percent are female.

INDIVIDUAL READY RESERVE

There is a shortage of pretrained soldiers in the Individual Ready Reserve (IRR) who would be required upon mobilization to bring Active and Reserve units from their peacetime to wartime strengths, form new units and serve as replacements. The IRR, which reached a low of 144,000 in early 1978, increased to 212,900 at the end of FY 81 (Figure 7).

FIGURE 7

INDIVIDUAL READY RESERVE STRENGTH



The increase was due principally to policy changes which now requires all obligated soldiers in the IRR to be retrained for the full term of their commitment, unless specifically approved for transfer to the Standby Reserve. In the past, these individuals were automatically transferred to the Standby Reserve at the completion of only five years of a six-year obligation. Another policy change now provides that enlisted members of the Army will be assigned to the IRR if they have potential for useful service under conditions of full mobilization rather than being administratively discharged before completion of their six-year military obligation. In addition, legislation that has provided for a six-year service obligation for all women and men over 26 years of age will have an affect on the IRR in FY 83 as those personnel completing their three-year tours of active duty enter the IRR.

In Fiscal Year 81, an IRR reenlistment bonus was funded. This program provided a bonus of $600 to individuals in selected skills who completed their obligation, had fewer than ten years of total service and reenlisted for a minimum of three years. Three thousand eight hundred and fifteen (3,815) individuals reenlisted for the IRR bonus in FY 81. By action of the Congress, this bonus does not continue into FY 82. OSD is requesting reinstatement of that bonus for FY 83. They have also directed a Non-Prior Service direct enlistment program. Both of these should reduce the IRR shortfall.

In addition to the initiatives mentioned above, preassignment of IRR members is being accomplished to increase the number of soldiers who will report rapidly for mobilization. At selected transfer points (locations where soldiers departing active duty are processed) obligated soldiers being released from active duty are receiving mobilization preassignment orders if their skills match mobilization requirements. Those who do not have a critical skill at the time of separation will be used to fill later requirements or, upon recall to active duty, be retrained in a critical specialty. Personnel management of pretrained individual Reservists is continuing to improve with better tracking and location procedures, more frequent contact and faster notification procedures.

Although progress has been made in improving the IRR strength and responsiveness, continued attention is required before we meet our needs for pretrained manpower from the IRR on mobilization.

INDIVIDUAL MOBILIZATION AUGMENTEE PROGRAM

Another area of the increased emphasis is the Individual Mobilization Augmentee (IMA) program. IMA personnel are individual Army Reservists who are assigned to Active Army units and organizations. They are members of the Selected Reserve and consequently eligible for the 100,000 call-up authority of the President. Attempts will be made to select members living commuting distance of their unit of assignment. This will enhance their opportunity for year-round training and participation in exercises with their unit. Priority for fill of positions will be to wartime positions not authorized in peacetime in the combat and combat support units which deploy early and to base support units which must be expanded quickly to support deployment operations. This program has great potential for improved individual mobilization readiness.

RECRUITING ARMY RESERVE HEALTH PROFESSIONALS

Recruiting health professionals for the Army Reserve continues to receive emphasis. The Army Reserve units are short 67 percent of the physicians and 35 percent of the nurses needed for mobilization. However, as the result of recent initiatives, the professional medical officer strength is projected to increase due to recruiting efforts (Figure 8).

FIGURE 8

ARMY RESERVE HEALTH PROFESSIONALS IN UNITS
(BY SPECIALTY)

	FY 81 (ACTUAL)	FY 82 (PROJ)	FY 83 (PROJ)	FY 83 AUTHORIZED END STRENGTH	FY 83 END STRENGTH vs AUTHORIZED No./Over(Short)
PHYSICIANS	1,062	1,306	1,458	3,350	-1,892/ (56%)
DENTISTS	911	1,102	1,102	1,005	+ 97/ 110%
NURSES	3,640	3,912	4,212	5,691	-1,479/ (26%)
OTHER PROFESS.	396	439	480	619	- 139/ (22%)
MEDICAL SERVICE	2,592	2,590	2,580	2,165	+ 415/ 119%*
TOTAL	8,601	9,349	9,832	12,830	-2,998/ (23%)

*The overage of 415 is composed of specialty 67 (administrative). There is an actual shortage of personnel within specialty 68 (professional).

The joint recruiting program between the Surgeon General's Office and the Army Reserve has been underway since the latter part of FY 80. The projected strength figures for FY 82 are based on the effectiveness of the recruiting program, which is projected to produce 400 physicians in FY 82 and annually thereafter for Army Reserve units. FY 82 funds provide for 44 Full Time recruiters, three staff officers and civilian administrative support personnel.

The FY 83 budget request also includes funds to upgrade continuing health education opportunities for 5,000 health professionals in the Army Reserve thereby contributing to the recruiting, retention and training of Army Reserve medical personnel.

FULL-TIME MANNING

Historically, the Army Reserve has had the lowest percentage of full-time personnel supporting units among all service Reserve Components. There is an urgent need to redress this deficiency in the Army Reserve by increasing the number of full-time unit support military personnel assigned to Army Reserve units.

Full-time manning, as a part of full-time unit support, accounts for 1,641 Army Reserve personnel in FY 81 and increases to 3,588 by the end of FY 83 (Figure 9).

FIGURE 9

ARMY RESERVE FULL-TIME MANNING PERSONNEL

	FY 80 ACTUAL	FY 81 ACTUAL	FY 82 PROJECTED	FY 83 PROJECTED
ARMY RESERVE (RPA FUNDED)	821	1,641	2,089	3,588
ACTIVE COMPONENT (MPA FUNDED)	390	770	770	770
TOTAL	1,211	2,411	2,859	4,358

These Army Reserve personnel are supplemented by 770 Active Component personnel in FY 83. The spaces indentitied for full-time manning reflect unit requirements, geographic proximity to parent and supported units, and unit mission and unique circumstances. Units have been afforded the opportunity to put a priority on the functional positions most in need of Full-Time staffing.

INCREASED ACTIVE GUARD AND RESERVE (AGR) PERSONNEL TO SUPPORT UNIT READINESS

The Selected Reserve is composed of three categories of personnel: paid drill strength (includes Reserve enlistees in the training base). full time support and individual mobilization augmentees. Paid drill strength makes up the bulk of the members of troop program units. Individual Mobilization Augmentees are Reservists who will fill critical predesignated positions in the Active Army upon mobilization. Full time support Army Reserve personnel are on full time active duty with the command and control structure as well as in other assignments where their Army Reserve expertise is required. Full-time support personnel provide either unit or augmentation support. Increasing the number of full time support personnel at unit level by assignment of full-time military to positions in Army Reserve units has great potential for improving our force's capability. These soldiers will be full-time specialists in functional areas such as training, logistics and administration. The FY 83 RPA budget estimate reflects an overall increase from the previous year of 1,499 full-time unit military personnel, bringing the total end strength of Reservists in support of unit readiness to 5,227.

A career management program for Army Reserve full-time support personnel is being developed to attract and retain qualified personnel. It will include rotational assignments and selective retention provisions similar to the Active Component. The program was implemented in February 1979 and includes all US Army Active Guard/Reserve tours (those which extend beyond 179 days), including technician positions converted to full-time military. The full-time manning positions will come under the long-tour management program once there has been an ititial fill by the local unit.

DRILL ATTENDANCE REPORTING

In the continuing effort to improve drill attendance reporting and reduce unnecessary administrative workload, the Army Reserve is working on two initiatives to the Joint Uniform Military Pay System - Reserve Components (JUMPS-RC). The first is the Drill Attendance Reporting Test (DART). Under DART a positive input transaction (as compared to the exception reporting system currently in operation) generates pay entitlements. DART employs a "credit card" accounting system in which the Reservist turns his card in to his unit at the beginning of a training assembly and a pay form is imprinted. This enhancement when implemented is expected to improve the drill attendance reporting.

Another initiative is the Consolidated Army System for Processing Entitlements to Reservists (CASPER). Under this concept a single disbursing station serves as the input station for Inactive Duty Training (IADT) pay, payment of Annual Training/Active Duty Training (AT/ADT), related travel pay and maintenance of Personnel Financial Records. This enhancement when implemented will reduce unit administrative workload.

EQUIPPING THE FORCE

Equipment is a factor in the readiness equation equal in importance to manning. Army Reserve units in peacetime must have, as a minimum, the essential level of equipment needed for training. Beyond that there must be an assurance that sufficient equipment will be available to Army Reserve units in time to meet deployment schedules and perform wartime missions.

The picture in the Army Reserve for stock funded equipment of early deploying Army Reserve units is being improved due to the FY 82 funding level approved by Congress. With the funds provided in FY 82, the Army Reserve units presently in the Army portion of the Rapid Deployment Joint Task Force (RDJTF) will be able to achieve their current stock fund equipment readiness objectives. However, as force changes occur, so do equipment requirements. This will have an impact on meeting future stock fund equipment readiness objectives.

Overall, Army Reserve major equipment status will also improve slightly as a result of Congressional initiatives from previous years, FY 82 funding, and equipment programmed for the Army Reserve from Total Army procurement. Major equipment requirements for Army Reserve units currently in the RDJTF have been funded and these units will be able to attain authorized objectives as equipment is received. Remaining Army Reserve units will improve slightly against authorizations but will lose ground against requirements because of modernization changes and force growth.

The FY 81 overall equipment on hand status of the Army Reserve was 63 percent of the peacetime dollar value authorized and 32 percent of wartime dollar value requirements (not considering the M1 tank requirements). The Army Reserve equipment status for selected items at the end of FY 81 is shown on Figure 10.

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FIGURE 10

ARMY RESERVE EQUIPMENT STATUS
(DOLLAR VALUE IN $000 AT END OF FY 81)

Commodity	Required	Authorized	On Hand	FY 81 Issues All Sources*
Comm-Elct	$ 532,886	$ 261,527	$ 115,047	$ 6,149
Tank-Automotive	3,338,236	1,445,673	927,166	30,257
Aviation	685,249	442,048	328,956	20,356
Weapons	575,654	318,482	254,591	8,006
Missile	63,907	31,663	5,767	195
Other	716,403	560,989	284,438	17,205
TOTAL	$5,912,335**	$3,060,382	$1,915,965	$82,168

*Includes Procurement, Depot Maintenance and Redistribution.
**This figure excludes the requirement of the M1 Tank. If the M1 Tank was included, this figure would be $7,546,502.

Total Army modernization includes the Army Reserve. It is vitally important that the Reserve Component forces are adequately modernized in order to be able to perform their missions in support of the Active Component. In some cases, this will require a new generation of equipment, while in other cases, it will be equipment displaced from the Active Component. Fielding forces with incompatible equipment systems compounds the support mission problems for the Total Army. In addition, incompatible equipment systems require additional repair parts and related equipment to sustain the fighting forces required to meet contingency plan requirements. Army Reserve units are included in the fielding plan for the new decentralized automated service support system. Attention is being given to the requirements of the Army Reserve for the equipment needed to provide the support upon which the Total Army relies.

FACILITIES There are 1,075 Army Reserve Centers and 181 Maintenance Facilities, owned or leased for the Army Reserve. These facilities are where Reservists conduct much of their inactive duty training and maintain their equipment. Only 45 percent of the existing facilities are considered adequate. There are long range military construction plans that provide for replacement of inadequate facilities, expand existing facilities to meet space requirements and replace government-owned facilities for those leased or donated buildings which are eigher inefficient to maintain or are not adequate to meet needs. During FY 82, five replacement centers, five maintenance facilities, and improvements to two field training sites will be constructed. Additionally, 20 centers will be modernized and expanded. The budget request for FY 83 will permit the construction of five replacement centers and four maintenance facilities; the improvement of two field training sites; and the modernization and expansion of five existing centers.

TRAINING THE FORCE Training is another essential factor in the readiness equation and one of the most important responsibilities of Army Reserve leadership. Effective mission-oriented training produces units capable of performing wartime missions. It also results in individual satisfaction leading to improved retention. To assist leaders at all levels, more effective methods of unit training have been developed which relate directly to wartime demands, such as the Battalion Training Management System.

The Army Training and Evaluation Program (ARTEP) and the Battalion Training Management System (BTMS) are proving to be effective in the Army Reserve. The ARTEP gives training managers a means for tailoring a training program to the specific requirements of the unit and assists unit commanders with diagnostic evaluations of training. BTMS is designed to train the trainers. It is founded on the premise that successful training programs begin with good planning. It prepares unit leaders, through workshop-type training, to plan and manage unit training assemblies more effectively. This type of training will sustain the level of competency of trainers achieved thus far. BTMS has been introduced to all Army Reserve units.

Time is a critical resources in Army Reserve training schedules as training generally takes place once a month and two weeks during the summer. Critical training time is often lost if equipment must be shared by two or more units. More training devices and simulators are needed to offset ammunition, fuel and travel constraints and to increase the efficiency of available training space and ranges.

Travel in the Army Reserve is an integral element in training. Travel to training sites away from their home Reserve Center is often necessary to receive training not available at Reserve Centers. Consequently, adequate resources for travel must be funded. The travel restrictions imposed in Fiscal Year 1980 had a direct and adverse impact on training and readiness. Last minute changes due to the restriction impacted adversely on both inactive duty training as well as annual training. Over 150 units (10,000 personnel) scheduled to conduct realistic hands-on training at selected sites during annual training 1980 were prevented from doing so because the travel restrictions.

Training must continue to be accelerated for soldiers who must operate or maintain new or displaced equipment. As an example, the Army Reserve does not have the new M-1 Abrams tank nor are there training devices in sufficient quantities on which to train Reservists. Yet, upon mobilization, some units will be required to maintain the M-1 tank.

The CAPSTONE program is a highly successful initiative that has improved Army Reserve training. Implemented in 1980, this program is designed to align Reserve Component units based on United States Army Europe's wartime requirements and to develop a methodology that permits Active Component and Reserve Component units to train and plan in peacetime with the command they will deploy and fight with in wartime. This single initiative has focused training on wartime mission, heightened interest and has certainly improved Reserve Component readiness.

Army Reserve units participate in various major joint training and readiness exercises side-by-side with their Active counterparts. This training constitutes some of the most effective mission-oriented training to which an Army Reserve unit can be engaged. In FY 81, Army Reserve units were included in REFORGER, LOGEX, GALLANT EAGLE, and other joint readiness exercises along with Active Army and other Services' participation. REFORGER provides for Army Reserve unit participation in a major joint exercise which deploys troops to Europe. This is an opportunity for Army Reserve units to deploy and train with Active Component units in a NATO scenario. LOGEX is a Headquarters, Department of Army sponsored, JCS coordinated free-play command post exercise. Emphasis is placed on the operation of logistics headquarters and subordinate units that support tactical operations. Army Reserve participants are trained in combat, combat support and combat service support command and staff problems. Emphasis is placed on the role of the Army Reserve and its functions among the military services operating as an armed forces team. GALLANT EAGLE is a JCS coordinated exercise which provides for simulated combat operations in a desert environment at Ft Irwin, California. Army Reserve units are programmed to continue their participation in this joint exercise.

These training exercises, which included tactical deployment to overseas locations in some cases, afford Army Reserve unit realistic training in performing their wartime mission. Additionally, they provide opportunities for Army Reserve units to test their mobilization plans in realistic conditions. Such training activities will be expanded in FY 82 and FY 83. For example, of the sixty-nine Reserve Component units scheduled to participate in GALLANT EAGLE 82, more than 30 are Army Reserve units.

Deployment training is especially valuable in improving unit readiness. It allows Reserve units to actually deploy and perform missions expected of them in wartime. Through this program, Active and Army Reserve units train together in their wartime chain of command. As a result, the Army Reserve commander is better able to tailor a mission-oriented, year-round training program. In FY 80, elements of 55 Army Reserve units participated in

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deployment training, In FY 83, the budget supports participation by elements of 100 units in this valuable training. This program should be expanded so that one-third of Army Reserve high priority units participate in deployment training every year.

The Affiliation Program continues as a funded and directed program to improve the readiness of selected Reserve Component high priority combat and combat support units earmarked to support NATO. Affiliation of Army Reserve and Active Component units permits command and staff interaction between Army Reserve units and Active Component Mobile Training Teams, joint Active and Army Reserve command and training exercises, and Army Reserve use of Active equipment and facilities for training.

VARIABLE TRAINING PROGRAMS ATTRACTIVE TO NEW RECRUITS

The initial active duty training (IADT) for non-prior service Army Reservists consists of instruction in common soldier tasks and basic technical skills. Although training is conducted by Active Component personnel, the Reservists' pay, allowances, subsistence, travel and clothing for that period are paid from the Reserve appropriation. With more success in recruiting young men and women without prior service, and the addition of one week of training, IADT costs have risen. Reflecting these factors, our FY 83 budget request of $85.3 million for IADT is an increase of 11 percent over the FY 82 level.

A variety of training options are being offered to make the Army Reserve program more attractive for non-prior service enlistees. Most Army Reservists choose the standard training program in which basic training is immediately followed by advanced individual training. Depending on the skill, they may be able to take advantage of one-station-unit-training which enables soldiers to complete training sooner. The alternate training program, first initiated in June 1978, is unique to the Reserve Components. It is designed especially for seasonal workers and students so that they can enlist and receive basic training, go back to their school or employment, join the Army Reserve unit, and then return within one year for advanced training. This program has met with considerable success since implementation. It is estimated that approximately 30 percent of new enlistees will select this option. Due to the flexibility provided by these programs and the addition of a skills enlistment bonus authorized for split-training, we expect to attract a greater number of participants.

There is also a special Reserve training program option for individuals with civilian skills that have a military equivalent - the Civilian Acquired Skills Program (CASP). This program allows advanced grade on entry and the opportunity for accelerated promotion. Over the past three years, 13 percent of new enlistees have selected this program. It has had special appeal for women due to an abbreviated training period of three weeks. In FY 81 the three-week option under this program was discontinued and all recruits enlisting under the CASP program are required to complete full basic training. The expanded employment of women requires that women entering the Army receive the same soldier skill training as males, including weapons and tactical taining to be able to properly defend themselves and their units.

TRAINING OF INDIVIDUAL READY RESERVISTS

The Individual Ready Reserve is an essential part of the Army Reserve. There is a continuing need to insure that members of the Individual Ready Reserve receive training required for their career deployment and to reinforce previously required skills. Current levels of funding are inadequate to fund all training for IRR members who are available for and require training.

MOBILIZING THE FORCE

Readiness requires workable mobilization plans. The requirement to bring together units located across the breadth of the United States into a few mobilization stations, to provide some augmentation of personnel and equipment, to complete validation training and to move to air/sea ports of embarkation in a timely manner is a monumental undertaking. As a consequence of the lessons learned and actions taken resulting from the MOBEX series of exercises, the Army Reserve is making improvements in this area. Mobilization planning is being accomplished in a more effective manner as a result of an increased number of full-time Army Reserve mobilization planners at a variety of headquarters and installations. Mobilization planning in Army Reserve units is receiving emphasis and being enhanced by the presence of additional full-time manning personnel. Most unit commanders have been to their mobilization stations, coordinated requirements with installation staffs, and seen their preassigned training and bivouac areas. Many commanders have driven the routes from their home station to respective mobilization stations and made plans for the feeding and billeting of their troops and refueling of their vehicles. Elements of these plans are executed during travel to and from annual training sites.

Although improvements have been made, more progress is needed if the Army Reserve is to fully meet mobilization readiness requirements. Past studies and exercises have confirmed that automated systems resources in the Army Reserve are inadequate to support pre-mobilization, mobilization execution and deployment. It is now obvious that the Army Reserve needs substantial upgrading in automation technology to assure the fielding of combat ready Reserve forces.

Progress has been made in implementing major programs to correct the Army Reserve automation deficiencies. The first of these programs is the development of a US Army Reserve Automation Management Plan (USARAMP). This plan will serve as a road map to devote resources in priority order to the Army Reserve automation needs. The second program concerns development of a Continental Army Management Information System (CAMIS). This system will improve the timeliness and accuracy of the Army Reserve personnel, training and equipment data. It will enable commanders to know the true status of their Reserve forces and make effective management decisions to meet war plans. CAMIS is scheduled to be operational in Fiscal Year 1985-86. The third program involves the distribution of state of the art tactical automated data processing equipment (ADPE) to Army Reserve units so they will be able to perform their wartime support missions. Army Reserve units have a total requirement for 790 sets of tactical ADPE of some kind. In 1982, Reserve units will receive the initial increment of two (2) of the Army's new tactical Decentralized Automated Service Support System (DAS3) and the FY 83 budget provides an additional 24 of a total requirements of 119 DAS3s. This new ADPE will be produced and distributed to units based on unit deployment priorities. All thes programs are designed to fulfill the Army Reserve automated systems requirements.

CONCLUSIONS

The Army Reserve is proud of the accomplishments made in FY 81. Strength of the troop program units has continued to grow as the result of effective retention and successful recruiting. The monetary incentives have contributed to this growth. An essential ingredient is also the dedicated officer and noncommissioned officer leadership throughout the entire Army Reserve chain of command and their efforts to improve training and readiness. Improvements are also underway in the management of the Individual Ready Reserve. The FY 83 budget request of $1.9 billion builds upon these accomplishments by further improving the ability of the Army Reserve to organize, man, equip, train and mobilize in support of the Army's global strategy of deterrence and if deterrence fails to be able to defeat any enemy in any environment.

A ready Army Reserve is required by the Total Army - an Army befitting a great nation. The importance of the Army Reserve as an element of the Total Army has been succinctly stated this year by the Secretary of the Army and the Chief of Staff.

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"With the adoption of our Total Army policy in the early 1970s and an increased global responsibilities, the contributions of the Army National Guard and the Army Reserve have become critical--possibly even decisive--because when mobilized [they] augment, reinforce, support and sustain the active force as well as expand the training and logistics bases. They are a cost-effective means of fulfilling these essential functions, and they are also an important indicator of national resolve."

ANNEX A

BUDGET OVERVIEW

The total obligational authority (TOA) requested for FY 1983 for the Reserve Personnel, Army and Operation and Maintenance, Army Reserve appropriations is $1,911 million. This is an increase of $279 million over the FY 1982 request of $1,632 million. The FY 1982 amount does not include the supplemental for FY 1982 pay raises. Of the total increase, $165 million represents price growth and $114.0 million real program growth.

The following table displays the FY 1983 request for the Reserve Personnel, Army appropriation by major program and provides for comparison the FY 1981 actual expenses and FY 1982 current estimate.

RESERVE PERSONNEL, ARMY

($000)

	FY 81	FY 82	FY 83
Pay Group A	459,423	512,973	614,083
Pay Group F	101,111	130,125	159,623
Pay Group P	1,723	2,012	2,660
Pay Group D	(9,869)	11,800	13,699
Total BA 1	562,257	656,910	790,065
Pay Group D	9,869	(11,800)	(13,699)
Sch Tng	28,782	26,561	30,790
Spc Tng	35,299	32,179	39,685
Mob Tng (IRR)	40,216	33,231	51,366
Admin/Spt	125,207	150,305	225,823
ROTC	49,747	59,454	71,882
HPSP	14,144	14,460	16,189
Total BA 2	303,264	316,190	434,735
Grand Total	865,521	973,100	1/ 1,224,800

1/ Does not include pay raise.

US ARMY RESERVE FY 1983 BUDGET

The FY 1983 Reserve Personnel, Army (RPA) budget request contains $790.1 million to support the USAR Selected Reserve end strength of 251,680, an increase of 16,700 over FY 1982. This includes an increase of 14,680 in Reserve unit paid drill strength. The FY 1983 RPA budget also contains $121.8 million which supports an increase of 178,694 man-days for School, Special, and Mobilization Training for unit members and members of the Individual Ready Reserve. Related to the strength posture is an increase in the incentive program of 16,000 participants in FY 1983. Furthermore, the FY 1983 ROTC program projects an increase of 3,500 new scholarships in the Senior ROTC program and also contains sufficient resources to continue the 40 new Junior ROTC units started in FY 1981/82. The total request for FY 1983 is $1,224.8 million.

The following table displays the FY 1983 request for the Operations and Maintenance, Army Reserve appropriation as well as the FY 1981 actual costs and current FY 1982 estimate.

OPERATION AND MAINTENANCE

ARMY RESERVE

($000)

	FY 1981	FY 1982	FY 1983
Training and Organization of Mission Forces	296,317	416,591	423,610
Depot Maintenance	5,706	8,458	7,741
Base Communications	10,432	10,703	11,485
Base Operations	148,746	151,907	161,766
Recruiting and Advertising	32,727	40,002	44,648
Management Support	26,780	31,289	37,150
Total	520,708	658,950[1]	686,400

[1] Does not include pay raise.

Significant program growth contained in the FY 1983 budget request for Operation and Maintenance, Army Reserve (OMAR) includes an increase of $13 million for force modernization, $6.4 million for force structure changes, $10.6 million for mobilization/deployment training, $4.8 million to support additional strength, $7.8 million for automation improvements and $3.3 million for support of the Individual Ready Reserve (IRR) direct enlistment program.

BIOGRAPHICAL SKETCH

Major General William R. Berkman
CHIEF, ARMY RESERVE

Major General William R. Berkman, Chief, Army Reserve, commenced this assignment on 1 June 1979.

General Berkman was commissioned a Second Lieutenant in the U.S. Army Reserve (USAR) from ROTC at the University of California, Berkeley, in June 1950. He served on active duty from 1952 to 1954. After completion of Quartermaster School Basic Course at Fort Lee, Virginia, in August 1952, General Berkman was assigned as Quartermaster Supply Officer for the 369th Engineer Amphibious Support Regiment, Fort Worden, Washington. From July 1953 to January 1954 he served in Korea as an advisor to the Republic of Korea Army with the Korean Military Advisory Group.

After completing his extended active duty in February 1954, General Berkman's Army Reserve assignments have included service in various positions in the 445th Civil Affairs Company from 1955 to 1965 and in the 351st Civil Affairs Command from 1965 to 1974. He was Deputy Commander of the 351st Civil Affairs Command, Mountain View, California from August 1974 to May 1975 and served as its Commander from June 1975 until his present assignment. The 351st Civil Affairs Command is a major Army Reserve Command which includes all Army Reserve civil affairs, psychological operations, special forces, and civil preparedness support units in the Sixth U.S. Army area.

As a civilian, General Berkman majored in economics at the University of California, Berkeley, and received an AB degree in 1950. He also attended the University of California School of Law (Boalt Hall) and received his JD law degree from that institution in 1957. Following law school he served as law clerk to Judge James Alger Fee of the U. S. Court of Appeals for the Ninth Circuit for one year before becoming associated in 1958 with the San Francisco law firm of Morrison & Foerster. He became a member of that firm in 1967. He is a graduate of the Army War College (non-resident course) and the U. S. Army Command and General Staff College.

The General and his wife, Betty Ann, formerly resided in Sausalito, California. He is a member of the State Bar of California, the Federal Bar Association, the American Bar Association, and has been admitted to the District of Columbia Court of Appeals. He is a member of the Reserve Officers Association of the United States, the Senior Army Reserve Commanders Association, and the Association of the United States Army. His decorations include the Meritorious Service Medal and the Army Commendation Medal.

DEPARTMENT OF THE NAVY

NAVAL RESERVE

STATEMENT OF REAR ADM. WILLIAM D. DANIELS, USNR, DEPUTY CHIEF OF NAVAL RESERVE

READINESS IMPROVEMENTS

Senator STEVENS. Admiral Daniels.

Admiral DANIELS. Thank you, Mr. Chairman.

I am pleased to appear before the committee this morning to request your support for the funds required for the Naval Reserve for fiscal year 1983. No small part of the credit for our continuing improvement is the interest and support provided by this committee.

Last year we were able to maintain our Selected Reserve strength within one-half of 1 percent of our authorized level of 87,000. This stability enabled us to continue our program of increasing the match between specific billet requirements and the capabilities of the individual selected reservist.

Just 4 months ago, in January, the first two FF-1052 *Knox* class frigates were transferred into the Naval Reserve Force, one homeported in Newport, one in Long Beach.

As a result of improved funding support the Naval Reserve has achieved significant improvements in readiness. Naval Reserve construction battalion unit readiness has made the most dramatic improvement. Other types of surface reserve hardware units are also on the upswing. Air Reserve readiness has remained relatively stable due mainly to equipment problems with both airframes and engines.

Considerable progress has also been made in improving the level of training in the Naval Reserve surface units. During the last 16 months we have constructed 14 shipboard simulators; we have constructed 5 damage control trainers; we have established 6 Naval Reserve maintenance activities; and added 12 LCM-8 landing craft.

Our request for fiscal year 1983 marks the real beginning of our phased growth and modernization which is essential to improve the Naval Reserve's ability to support an expanding Navy.

The Naval Reserve Force frigate program will continue its expansion to a level of six FF-1052-class frigates by the end of fiscal year 1983.

Replacement of the Naval Air Reserve's C-118 aircraft is one of our highest priorities. The Navy has been examining alternatives to determine the least costly method of providing required mobilization airlift capability and support as well as necessary Naval Reserve training. We are presently structuring a lease/purchase plan which will provide as many as 12 used DC-9 aircraft.

We are developing plans for a dramatic change in our Reserve carrier air wings. We are shifting from a policy of vertical aircraft acquisition, where the Naval Reserve receives aircraft from the active fleet as the Active Force is modernized, to a policy of horizontal integration of aircraft where we will have a Reserve squadron for virtually all of our front line fleet aircraft. Discussions are focused on providing F/A-18, A-7E, and A-6E aircraft to the Naval Air Reserve as early as possible.

The Reserve personnel Navy funding request of $641.3 million will support an average strength of 93,240 Selected Reserves, 11,710 active duty, full-time support personnel, and 550 individual mobilization augmentees who will only be paid for their 2-week annual active duty training. It will support the various Naval Reserve Officer Training Corps programs and the Navy portion of the Armed Forces health professions scholarship program.

The major increase over 1982 is the result of the transfer of $238.4 million from the military personnel Navy appropriation to support the cost of the active duty TAR personnel. This transfer was directed by the Congress. However, there is an increase of $24 million for program growth which includes an increase for full year funding of the 1982 strength increase.

The funding requested for the "Operations and Maintenance Naval Reserve" appropriation for fiscal year 1983 is $653 million. This is an $81.9 million net increase over the fiscal year 1982 funding level, a real program growth of $64.8 million, or about 10 percent. This is primarily for increases in ship's maintenance incurred with the introduction of the FF-1052 class frigates and the overhaul of six additional ships over the fiscal year 1982 level.

We will not meet the congressional containment policy of no further growth above the fiscal year 1978 year-end level of backlog of nondeferrable maintenance and repair. Accelerated deterioration of the physical plant will drive this backlog to a projected level of $38 million in fiscal year 1983, which is about $17 million above the containment level.

In summary, Mr. Chairman, we have seen remarkable progress in the Naval Reserve. We have implemented the Navy's mobilization manpower requirements determination system, known as Nammos, which generates our Selected Reserve requirements.

We have greatly improved the quality of training through direct involvement of Active Force commands to which the individual reservist or the Reserve units would mobilize.

We have embarked on a growth and modernization program to increase our capability to support our expanding Navy.

Thank you, Mr. Chairman. That completes my statement.

Senator STEVENS. Thank you very much.

Admiral DANIELS. Yes, sir.

[The prepared statement of Rear Adm. Willian D. Daniels follows:]

PREPARED STATEMENT OF REAR ADM. WILLIAM D. DANIELS, USNR

DEPUTY CHIEF

NAVAL RESERVE

Mr. Chairman and members of the Committee:

It is my pleasure to appear before this committee today to describe the current status of the Naval Reserve and present our program for Fiscal Year 1983.

This is my first opportunity to report on the status of the Naval Reserve and it is a distinct pleasure to report continuing improvement. No small part of the credit for our progress is the interest and support provided by the Congress.

Current Status

Improvements in the Naval Reserve cover the full spectrum of Selected Reserve strength, equipment modernization, readiness and training.

Selected Reserve Strength

We were able to maintain our Selected Reserve strength within one half a percent of our authorized level of 87,000 and ended Fiscal Year 1981 with 87,599 personnel on board. This stability enabled us to continue our program of increasing the match between specific billet requirements and the capabilities of the individual Selected Reservist.

The first quarter of Fiscal Year 1982 was also a period of stable strength for the Naval Reserve during which we achieved a major milestone with the endorsement of the Navy's Manpower Mobilization System (NAMMOS) in the report to the House Armed Services Committee by the Office of the Secretary of Defense. The approval of the Navy's mobilization manpower determination system has been essential to full acceptance of our stated Selected Reserve requirements.

Last November we instituted a 30 year career plan for Selected Reserve enlisted personnel, which will not only improve the career and promotion opportunities for mid-grade petty officers, but will also improve the vitality of the force.

Most significantly, we have started to increase our Selected Reserve strength to more closely match the increasing requirements generated by NAMMOS. At the end of December, The Chief of Naval Reserve issued a challenge to our recruiting force to make a major effort to achieve the significant increase in strength funded by Congress for Fiscal Year 1982. He emphasized that we must have only quality accessions to meet approved billet requirements. We will maintain personnel quality and improve personnel readiness. A growth of seven thousand Selected Reservists by the end of this fiscal year will be a most difficult task. We are utilizing all available assets to achieve this goal and we are hopeful of success. Our efforts are beginning to produce results. I am pleased to report that we experienced a growth of 959 Selected Reservists in the month of March.

NRF Frigate Program and Operational Control

On January 16th 1982, the first two FF-1052 class Frigates were transferred into the Naval Reserve Force. The planned transfer of twenty-four modern frigates to the Naval Reserve Force is a major modernization effort. We have entered into written agreements with the type commanders which detail operational scheduling procedures for these ships. Careful planning has been completed to ensure the ships will be utilized to accomplish required training and qualifications of the ship and its Reserve crew. Our representatives on both coasts are involved in the operational scheduling process on a continual basis and the Chief of Naval Reserve has the final approval authority for the schedules. Additionally, a maintenance monitoring activity has been established at Chief of Naval Reserve headquarters to ensure that the maintenance of the frigates is kept up to fleet standards.

Improvements in Readiness

As a result of improved funding support, the Naval Reserve has achieved significant improvements in readiness. Naval Reserve Construction Battalion unit readiness has made the most dramatic improvement. Other types of surface Reserve hardware units are also on the up-swing. Air Reserve Readiness has remained relatively stable due mainly to equipment problems with both airframes and engines. Augmenting and sustaining units throughout the Naval Reserve show a modest readiness increase due primarily to improvements in individual qualifications.

Improvements in Training

Considerable progress has been made in improving the level of training in the Naval Surface Reserve. During the last nineteen months, funding for training equipment has permitted the construction of fourteen Shipboard Simulators (SBS) and five Damage Control Trainers (DCT); establishment of six Naval Reserve Maintenance Activities (NRMF); and the placement of twelve landing craft in the Naval Reserve. These trainers and equipment provide much needed hands-on training for units and personnel to maintain mobilization readiness qualifications. The most significant event in improving Naval Air Reserve training has been the assignment of limited numbers of Reserve air crews to fly fleet aircraft at Jacksonville, Florida. On the west coast a new initiative has Reserve flight crews training in USN Flight Simulators with flights in fleet aircraft planned for this year. Both of the programs are providing training on equipment not previously available to the Naval Air Reserve.

Mutual Support

Our Mutual Support program, where direct assistance to the Navy in the performance of its peacetime mission is provided as an adjunct to mobilization training for the Naval Reservists, continues to expand. Some examples of this type of Reserve training are:

- Reserve attack and fighter squadrons provide opposition forces for war-at-sea, fleet air defense, and air-to-air warfare exercises for workup training of deploying battle groups.

- Reserve Transport (VR) squadrons are furnishing the entire CONUS fleet logistics support effort and are also augmenting the MED on a regular basis. Also C-9B's are deploying to WESTPAC to support the USS MIDWAY and Pathfinder (Transpac) movements of Navy and Marine TACAIR squadrons.

- Reserve VC squadrons presently provide 5,060 hours per year of target and Dissimilar Air Combat Training (DACT) services to fleet units.

- During 1981, 11 Reserve VP Squadrons provided 4 aircrews and 3 aircraft for 22 weeks at Bermuda and Lajes and 20 weeks at Kadena to supplement fleet operations.

- Naval Reserve Force (NRF) ships and special boat units are fully integrated into fleet exercises and underway training schedules. They also provide assets for special evolutions, such as the Surface Warfare Officers School ship and the annual Great Lakes Cruise.

- SIMA/YR Reserve units have provided over 64,000 man-days in direct support of ship overhaul and rework projects at the Intermediate Maintenance Level activities.

- Supply Systems Command units are assigned projects in stock control, warehousing, traffic management, stock purification, materials identification, and other areas covering the entire spectrum of the Naval Supply Systems Command's tasks and responsibilities.

- Reserve Seabee support to active commands was in excess of 30,000 man-days last year.

- Public Affairs units provided almost 1,000 man-days of support to active commands in all areas of public affair and public information. In addition, support was provided for the Great Lakes Cruise and the NATO Standing Naval Force visit to New York City in 1981.

Fiscal Year 1983 Request

Our request for Fiscal Year 1983 marks the real beginning of our phased growth and modernization which is essential to improve the Naval Reserve's ability to support an expanding U. S. Navy. Just as the Naval Reserve was reduced in size at the same time as the active duty Navy during the seventies, the Naval Reserve must grow to meet its expanded responsibilities in the eighties.

Selected Reserve Strength

The average paid drill strength of 93,240 requested for Fiscal Year 1983 represents a significant increase over the authorization for Fiscal Year 1981, but is essentially the same as our anticipated end strength for Fiscal Year 1982. What appears to be a significant increase in the number of full-time active duty support personnel is the result of the transfer of the funding and accountability of all the Navy's Training and Administration of Reserves (TAR) personnel (12,038 end strength) from the Military Personnel, Navy (MPN) to the Reserve Personnel, Navy (RPN) appropriation in Fiscal Year 1983. This action was the result of Congressional directive. There is some growth within the TAR program, approximately 600, as the result of the continuing expansion to support the new Naval

Reserve Frigate Program. We are also continuing to expand our Individual Mobilization Augmentee (IMA) program with a planned growth from an average strength of 320 in Fiscal Year 1982 to 550 for Fiscal Year 1983 for those who will only be paid for two weeks annual active duty training (CAT D) and 500 in pay Category A. This growth marks the beginning of a new program to meet expanding medical support requirements. This combination of Selected Reserve unit strength (92,740), full-time active duty support personnel (12,038), and Individual Mobilization Augmentees (500 Category A and 550 Category D) results in a Total Paid Naval Reserve of 105,828 for Fiscal Year 1983.

Naval Reserve Force Levels

The NRF Frigate program will continue its expansion to a level of six FF-1052 class Frigates by the end of Fiscal Year 1983. Although two FRAM I Destroyers will remain in the NRF through Fiscal Year 1983, the only destroyer operating beyond Fiscal Year 1983 will be the USS EDSON, a DD-931 class ship which is significantly newer and more combat capable than the destroyers we are decommissioning. A detailed plan outlining the further modernization of this increasingly important part of the NRF will be forwarded to Congress this year.

The four Amphibious Cargo Ships (LKA) assigned to the NRF are scheduled to be returned to the active forces during Fiscal Year 1983. This will improve the peacetime amphibious lift capability necessary to support the Navy's deployed forces.

Four of the Ocean Minesweepers (MSOs) assigned to the Naval Reserve Force are being retired during Fiscal Year 1983 due to their age and maintenance problems associated with their unique propulsion systems.

Replacement of the Naval Air Reserve's C-118 aircraft is one of our highest priority items. The Navy has been examining alternatives to determine the least costly method of providing required mobilization airlift capability and support as well as necessary Naval Reserve training. We are presently investigating a lease/purchase plan which could provide as many as twelve used DC-9 aircraft by the end of Fiscal Year 1984.

The program to improve the capability of our Reserve patrol aircraft (VP) through the procurement of the Tactical/Navigational Modernization (TACNAVMOD) kits has been suspended for Fiscal Year 1983 as the result of fiscal constraints. The installation of kits procured during previous years continues and will provide a significant increase in capability to these aircraft. Thirty-five percent of Reserve VP aircraft are scheduled to have this fleet-compatible capability by the end of Fiscal Year 1983.

We are developing plans for a dramatic change in our Reserve Carrier Air Wings. The Navy is adopting a policy of horizontal integration of aircraft into the Naval Reserve where we will have a Reserve squadron for virtually all of our front line fleet aircraft. Discussions are focused on providing F/A-18, A-7E, and A-6E aircraft to the Naval Air Reserve as early as possible.

I strongly support this new philosophy of upgrading the capability of the Naval Air Reserve to make both the units an individuals better qualified and equipped to augment the fleet immediately upon mobilization.

Readiness Initiatives

The fiscal year 1983 budget includes funding in three areas which will improve the readiness of all Reserve units: (1) increased formal school training that will enable Reservists to acquire critical skills needed upon mobilization; (2) additional Weekend Away Training (WET) to allow mobilization readiness training at active duty gaining commands; (3) additional Special Active Duty for Training including support for fleet exercises. This will improve unit individual readiness through integration with operating active duty ships and permit attainment of watch station qualifications.

Training Initiatives

Three additional Shipboard Simulators and twelve additional Damage Control Trainers are included in the FY 1983 budget request to make them more readily available to Reservists nationwide. Significantly improved training will be achieved by the increases in Weekend Away Training (WET) travel and per diem funding, additional funding for formal school tours, and sustained funding for participation in fleet exercises. Increases in funding of these three areas should produce dramatic improvements in both unit readiness and training quality.

The programmed changes will result in a Naval Reserve at the end of Fiscal Year 1983 as outlined below:

MAJOR COMMISSIONED UNITS

35 Ships

3 Destroyers (DD)

6 Frigates (FF)

18 Minesweepers (MSO)

2 Tank Landing Ships (LST)

5 Fleet Ocean Tugs (ATF)

1 Salvage Ship (ARS)

4 Special Boat Units (numerous craft)

16 Mobile Inshore Undersea Warfare (MIUW) Units

17 Mobile Construction Battalions (MCB)

6 Cargo Handling Battalions (CHB)

2 Carrier Air Wings (CVWR)

4 Fighter Squadrons (VF)

6 Attack Squadrons (VA)

2 Light Photographic Squadrons (VFP)

2 Carrier Airborne Early Warning Squadrons (VAW)

- 2 Tactical Electronic Warfare Squadrons (VAQ)
- 2 Aerial Refueling Squadrons (VAK)

2 Patrol Wings (RESPATWING)

- 13 Patrol Squadrons (VP)

1 Helicopter Wing (HELWING RES)

- 4 Helicopter Anti-submarine Squadrons (HS)
- 1 Helicopter Combat Support Squadron (HC)
- 2 Helicopter Attack (light) Squadrons (HAL)

1 Tactical Support Wing (RESTACSUPWING)

- 9 Fleet Logistic Support Squadrons (VR)
- 2 Fleet Composite Squadrons (VC)

The Naval Selected Reserve also contains approximately 2100 Reinforcing and Sustaining units organized and trained to provide support to the following programs:

Submarine Forces
Mine Forces
Mobile Logistics Support Forces
Surface Combatant Forces
Air Forces
Construction Forces
Amphibious Forces
Marine Corps
Special Warfare Forces
Major Fleet/Force Commands
Unified/Joint/Shore Commands
Support to Allies
Telecommunications
Security Group
Intelligence
Oceanography
Naval Control of Shipping
Research
Military Sealift
Bases and Stations
Naval Material Command
Air Systems
Electronics Systems
Facilities Engineering
Sea Systems
Civil Defense
Supply Systems
Merchant Marine
Medical
Training
Personnel System
Public Affairs
Law
Chaplain
Selective Service

NAVAL RESERVE APPROPRIATIONS

The Naval Reserve is supported primarily by two appropriations; the Reserve Personnel, Navy (RPN) and the Operations and Maintenance Naval Reserve (O&MNR) appropriations. First, the Reserve Personnel, Navy appropriation.

Reserve Personnel, Navy

The Reserve Personnel, Navy (RPN) appropriation is divided into two budget activities. Budget Activity One provides funding for Unit and Individual Training. Budget Activity Two provides funding for Other Training and Support including the active duty TAR personnel, Reserve Officer Candidate Program, Naval Reserve Officer Training Corps, Armed Forces Health Professions Scholarship Program, and the Navy Junior Reserve Officer Training Corps. The total Fiscal Year 1983 RPN appropriation request is for $641.3 million, which includes $330.6 million for Budget Activity One and $310.7 million for Budget Activity Two.

The funding request will support an average strength of 105,500 Reservists in paid status, including 11,500 active duty TAR personnel previously funded in the Military Personnel, Navy (MPN) appropriation. The Budget Activity Two request includes $238.4 million transferred from the MPN appropriation to support the cost of active duty TAR personnel. The Budget submission requests an increase of $24.0 million for program growth. This includes $9.5 million for full year funding of the 94,000 FY 1982 End Strength (93,440 Selected Reserve, 352 IMA's and 208 full-time active duty) which was incrementally funded (90,700 man year average) in FY 1982. Cost escalation is $4.0 million.

Travel funding included in the FY 1983 RPN request is all mission essential travel and is based upon actual costs experienced in FY 1981 with a modest allowance for inflation. The requested funding appears adequate to execute Naval Reserve Training programs for Fiscal Year 1983.

Operations and Maintenance, Navy Reserve

The other major appropriation which supports the Naval Reserve is the Operation and Maintenance, Navy Reserve (O&MNR) appropriation. The Naval Reserve is dependent upon funds in this appropriation for support of mission forces, depot level maintenance, and other support. This includes funds for fuel, intermediate maintenance, repair parts and related support for the operation of the aircraft in both the Naval and Marine Corps Reserve; operating funds and maintenance for Naval Reserve ships; depot level maintenance, and rework of aircraft, engines, and components for Naval Reserve activities under command of the Chief of Naval Reserve.

The funding requested for the O&MNR appropriation for FY 1983 is $653.0 million which is a $81.9 million net increase over the FY 1982 funding level of $571.1 million. The overall program reflects a real program growth of $64.8 million or 11.2% and a price growth of $17.1 million. Program growth is primarily for increases in Ship's Maintenance incurred with the introduction of the FF-1052 class frigates and six additional ship overhauls.

In addition, we will not be able to meet the Congressional Containment Policy of no further growth above the Fiscal Year 1978 year-end level of the backlog of nondeferrable Maintenance and Repair which was $20.7 million. Accelerated deterioration of the physical plant will drive our nondeferrable maintenance and repair backlog for FY 83 to a projected level of $38 million, or about $17 million above the containment level.

The NRF ship steaming time of 14 days per ship per quarter remains at parity with previous years. The FY 1983 flying hour program funds 83 percent of Primary Mission Readiness (PMR) level.

SUMMARY

During the past four years we have seen remarkable progress in the Naval Reserve. Not only have the past proposals for reductions in Selected Reserve strength been reversed and the on board strengh stabilized permitting increases in quality, we have also made substantial improvements in readiness and mobilization capabilities.

The Navy has developed and implemented an integrated mobilization manpower requirements determination system (NAMMOS) which generates our Selected Reserve requirements. This system has just recently been endorsed by the Office of the Secretary of Defense.

We have been able to use this period of stability in strength to organize our structure at the unit level and to steadily improve the match of individual Reservists and their qualifications with the specific requirements of their mobilization billet.

We have greatly improved the quality of training through direct involvement of the active force command to which the individual Reservist or Reserve unit would mobilize. This involvement of active force units in Reserve training has had the additional benefit of direct support to the fleet as a by-product of Reserve training. This Mutual Support program has been warmly received by both the active and Reserve forces.

The Naval Reserve has just embarked on a growth and modernization program to increase our capability to support an expanding Navy. We are:

- Increasing the number of qualified Selected Reservists,
- Modernizing and expanding our surface warfare capability with the NRF Frigate program,
- Actively seeking replacement aircraft for our C-118s, and
- Adopting a new policy of horizontal integration of our tactical air forces which will place new aircraft directly into the Naval Air Reserve.

The Naval Reserve is anxious to accept these new and challenging assignments.

I shall be happy to respond to any questions or provide any additional information you may desire.

BIOGRAPHICAL SKETCH

REAR ADMIRAL WILLIAM D. DANIELS, USNR
DEPUTY CHIEF OF NAVAL RESERVE

Rear Admiral William D. Daniels began his career in 1944 when he enlisted in Birmingham, Alabama, his home of record. After completing Recruit Training and Signal School, he served in the Pacific during the latter part of World War II. Assignments with the Service Force and with the Royal Australian Navy were completed in the New Guinea and Philippine areas. Following World War II, he served with the Atlantic Fleet Mine Force and at the Charleston Naval Base.

Rear Admiral Daniels entered the Naval Academy in 1950 and graduated with the class of 1954 remaining on duty at the Academy after graduation. Following an assignment as First Lieutenant in USS LAFFEY (DD-724), he entered Submarine School at New London, Connecticut, and upon completion had tours on the USS BURRFISH, USS SEA CAT and USS CORPORAL.

Rear Admiral Daniels completed a tour of Amphibious Force Duty in 1968 after serving as First Lieutenant in USS

PRINCETON for two and one-half years. Three Western Pacific deployments and nine amphibious assaults in Vietnam were conducted by PRINCETON during this period.

Additional shore duty assignments have included; Commanding Officer, Naval Reserve Training Center, Omaha, Nebraska; staff of Commander, Naval Reserve Training Command; Officer Distribution Section of the Bureau of Naval Personnel; Executive Officer, USS PONCE (LPD-15); Commanding Officer, USS VOGELGESANG (DD-862); Director of the Reserve Plans and Policy Division, BUPERS; Commander, Destroyer Squadron 34; Special Assistant for Naval Reserve on the staff of the Deputy Chief of Naval Operations for Manpower, Personnel and Training; and Assistant Chief of Naval Personnel for Naval Reserve/Assistant Commander for Naval Reserve in the Naval Military Personnel Command. In July of 1981, Rear Admiral Daniels was ordered to New Orleans as Deputy Chief of Naval Reserve.

His decorations include the Legion of Merit, Meritorious Service Medal, two awards of the Navy Commendation Medal and various campaign medals.

Rear Admiral Daniels and his wife, the former Joan Harvey of San Antonio, Texas, have three children. Their son, Bill, is a member of the Class of 1977 at the Naval Academy. Daughter, Jane, is a graduate of Mary Washington College, Fredericksburg, Virginia. Their other daughter, Kim, is a student at Florida State University.

Marine Corps Reserve

STATEMENT OF MAJ. GEN. GEORGE B. CRIST, U.S. MARINE CORPS, DEPUTY CHIEF OF STAFF FOR RESERVE AFFAIRS

POSTURE OF CORPS

Senator STEVENS. General Crist.

General CRIST. Mr. Chairman, it is a privilege to appear before the committee today to discuss the posture of the Marine Corps Reserve.

The year 1981 was another great year. For the second straight year our Selected Reserve strength ended up over plan. Attrition continued to decline, while retention went up. As strength increased, so did quality; more high school graduates, fewer mental group IV's.

Training was rigorous and vigorous. Units were subjected to mobilization and combat readiness testing. Reservists trained alongside their active counterparts from CONUS to Korea. More units got out of their training centers and into the field.

New management initiatives were introduced, and mobilization planning was both intensified and accelerated.

All in all, 1981 was indeed a good year.

But I must admit there were also problems. Personnel readiness continues to be degraded by skill shortages. Aviation readiness was limited by aging aircraft, shortfalls, incompatibility and near obsolescence. Materiel readiness was plagued by serious shortages, and training readiness suffers from a backlog in home center construction.

The most critical aircraft shortages exist in the KC-130—that is, the refueler/transport—and the AH-1 attack helicopter communities. With the addition of the 4 KC-130's which were appropriated through congressional foresight in fiscal year 1982, there still remains a shortfall of 17 aircraft to complete the squadron in Glenview, Ill., and stand up a second squadron at Stewart Airfield in New York. The single Marine Corps Reserve attack helicopter squadron in Atlanta only has 8 of the 24 aircraft it is authorized. There is an urgent need to increase the helicopter antitank capability in the Marine Corps, and this is an ideal mission for the Reserve.

With regard to our materiel readiness, the Marine Corps Reserve is currently short $546 million in equipment and $138 million short in secondary items. The latter includes repair parts, individual equipment, engines, transmissions and the like. The fiscal year 1983 budget provides for a 5.2-percent reduction in the equipment shortages and a 30-percent reduction in the secondary item shortfall.

In summary, Mr. Chairman, the Marine Corps Reserve is alive and well, but it is obvious that we must pick up the cadence if the Marine Corps Reserve is to be a fully capable adjunct to the Active Force.

Thanks in no small part to congressional backing, we are moving out to meet that challenge.

That completes my statement, Mr. Chairman.

[The prepared statement of Maj. Gen. G. B. Crist follows:]

PREPARED STATEMENT OF MAJ. GEN. GEORGE B. CRIST

DEPUTY CHIEF OF STAFF FOR RESERVE AFFAIRS

MARINE CORPS RESERVE

Mr. Chairman, distinguished members of the Committee, it is a privilege to testify today on the Marine Corps Reserve.

1981 was another good year.

Selected Marine Corps Reserve (SMCR) end strength has grown steadily since FY-76. By the end of FY-81, the strength had climbed to 37,049 (10 percent over the goal). We plan to achieve wartime strength by FY 86-87. As strength increased so did quality. The percent of high school graduates increased 6 percent over 1980 to 79 percent. Mental Group IVs decreased from 25 percent in 1980 to 9 percent in 1981. Attrition continued to decline while retention went up. Non prior service attrition was down 5.6 percent from 1980. First term retention hit 55 percent as compared to 9.1 percent in 1975. Career retention was 94 percent for FY-81 versus 88 percent in FY-80. These positive trends are expected to continue in FY-82 and FY-83.

Training was rigorous and vigorous. Using the same standards as applied to active units, 54 percent of the Reserve units tested were fully combat ready. Aviation units scored best with 86 percent combat ready. Eighty-one percent of the Reserve units tested were deployment ready. Two hundred and fifteen units conducted mission oriented training on the weekends, away from Reserve Training Centers, in realistic environments. Nearly 15,000 reservists participated in joint, combined and service field exercises. Over 200 individual SMCR personnel were assigned to and trained as Individual Mobilization Augmentees in the billets which they will fill on mobilization. We expect to preassign an additional 700 during FY-82. A total of 1,543 Individual Ready Reservists received refresher training in FY-81 alongside their active counterparts. To improve readiness, the exercise program is being expanded in FY-82.

Mobilization planning was intensified and accelerated. During 1981, the Reserve structure was reexamined to determine the optimal composition and configuration necessary to: provide the air and ground SMCR structure required to augment and reinforce three active MAFs; field a Reserve MAB; and provide the nucleus for reconstitution of a Division and Force Service Support Group. As a result, we are embarking on an extensive, phased, seven year modernization plan to restructure and equip the ground, combat service support, and aviation elements in order to provide those capabilities and functions needed to satisfy full wartime requirements. Mobilization plans now require Sending Commands to identify specific augmentation and reinforcing Reserve units to the Receiving Active Commands, together with sustainability data. Actions are already being taken to assign specific contingency planning missions to selected Reserve aviation units and to the Reserve MAB.

New management initiatives were introduced. Before FY-82, the Marine Corps Reserve had no management structure to receive, administer, train, assign and support the mobilization of individual reservists. The Marine Corps Reserve Support Center has been established at Kansas City for this purpose and will achieve full capability by FY-84. An automated data processing center will be established in FY-82 at the Marine Corps Reserve Support Center. Beginning in FY-82, automated data processing equipment will also be introduced into the selected Reserve units.

All in all, the Marine Corps Reserve is alive and well, but I must admit there are also problems. Personnel readiness continues to be degraded by skill shortages. Aviation readiness was limited by aging aircraft, shortfalls, incompatibility and near obsolescence. Materiel readiness was plagued by serious shortages. And training readiness suffered from a backlog in home center construction funds.

As unit strength increases, grade and skill shortages are emerging as major inhibitors to increased personnel readiness. Approximately 30 percent of the 4th Marine Division units are reporting degraded readiness for this reason. The primary contributing factors to this problem are non prior service attrition and a continuing decline in the prior service population. Non prior service attrition in FY-81 averaged 6.7 percent of the total selected Reserve population. While this is down 5.6 percent from FY-80, it still represents an unacceptable loss of 2,489 trained individuals. Concurrently, there has been a 10 percent net decline in the unit prior service population over the past four years. This represents an actual loss of 1,418 prior service reservists. To ameliorate these problems and achieve the goal of 100 percent wartime strength, a vigorous attrition management program will be instituted, bonus utilization maximized, recruit tracking improved, retraining opportunities expanded and a comprehensive prior service recruiting program inaugurated.

The Marine Reserve aircraft inventory consists of attack aircraft that are 14 to 17 years old, fighters that average 16 years of age, and transport helicopters that average 14 years of age. The most critical shortages exist in the KC-130 (refueler/transport) and the AH-1 (attack helicopter) communities. Adding the four KC-130s appropriated through Congressional foresight in FY-82, there still remains a shortfall of 17 aircraft to complete the squadron at Glenview, Illinois and standup a second squadron at Stewart Airfield, New York. The single Marine Corps Reserve attack helicopter squadron in Atlanta has only eight of the 24 aircraft authorized. There is a urgent need to increase the helicopter anti-tank capability in the Marine Corps and this is an ideal mission for the Reserve. Funding to alleviate aircraft shortages, however, could not be accommodated in the FY-83 budget. FY-85 is the earliest these initiatives could be considered due to funding constraints.

Regarding materiel readiness, the Reserve is currently short $546 million in equipment and $138 million short in secondary items (repair parts, individual equipment, engines, transmissions, etc.). The FY-83 budget provides reductions of 5.2 percent in the equipment shortages and a 30 percent in the secondary item shortfall.

There is a pressing need to replace, renovate or upgrade 87 training centers in order to afford an acceptable training and habitability standard for the Reserve. The opportunity to replace these inadequate facilities is constrained by a chronically underfunded military construction program for the Navy and Marine Corps Reserve. Although the program has shown some growth over the past several years, the rate of increase has not kept pace with inflation. The FY-83 Military Construction Naval Reserve program includes $11.6 million for nine projects for the Marine Corps Reserve. This leaves a $196 million backlog consisting of 15 projects which are programmed, but unfunded and an additional 63 training centers, which require replacement, renovation or upgrading, but are unprogrammed.

To modernize our forces and facilities and introduce efficient management requires an adequate level of funding. The FY-83 Reserve budget request of $214.3 million is a carefully formulated fiscal program designed to continue the progress toward improving the mobilization and development readiness of the Marine Corps Reserve.

The FY-83 RPMC Appropriation Budget request of $165.9 million will support an SMCR end strength of 39,744 (38,300 average strength) while concurrrently funding significant readiness enhancement programs.

Thirteen million dollars has been allocated for annual training duty travel to permit more SMCR units to conduct annual active duty training at varied locations, thereby achieving greater realism and less repetitiveness in the conduct of mobilization mission training. $2.4 million will be directed to the Individual Mobilization Augmentee program. This program was given new impetus in 1981 as a result of lessons learned from the DOD Mobilization Exercise, PROUD SPIRIT. This exercise identified the need for a greater number of trained, readily mobilizable individuals preassigned to fill billets throughout the Marine Corps which will be critical at the outset of mobilization for a contingency or war. It is planned to preassign and train these individuals in their mobilization assignments utilizing training assemblies and/or annual training. Locations where Individual Mobilization Augmentees will be assigned include Fleet Marine Force staffs, Operation Centers, Mobilization Processing Centers, recruit depots and schools. The FY-83 program increased the number of Reserve full-time support personnel by 231 to accommodate the modernization and expansion of the Reserve Division, Wing and Force Service Support Group. This increase is necessary to provide adequate numbers of support personnel on active duty at the ranks and levels necessary to satisfy the requirement which would otherwise have to be met by regular personnel assigned full-time support to the Reserve component.

The FY-83 O&MMCR Appropriation request of $48.4 million provides for the day-to-day costs of operating and maintaining Marine Corps Reserve forces, functions, activities and facilities.

The $24.7 million contained in Mission Forces includes an increase of $4.1 million to support and increase the tempo of Annual Training Duty and weekend training essential to sustain SMCR units in a substantially combat ready posture. Included is the replenishment and acquisition of equipment to partially fill deficiencies in both organizational and individual training allowances as well as initial issue of new items of equipment being introduced into the inventory. The increase will also provide additional training allowances of organizational and individual equipment, consumable supplies, fuel and transportation of things. In addition, the increased funding will provide for the associated additional training allowances of individual and organizational equipment and ancillary supplies and materials required to support the SMCR strength increase of 1,204 and the phased modernization of the 4th Marine Aircraft Wing.

The $1.5 million in Depot Maintenance is required to insure that major end items are available to meet unit training and mobilization requirements. The FY-83 request will provide for the overhaul of 1 percent of total ordnance assets, 3 percent of total motor transport assets, 1 percent of total engineer assets and 1 percent of total communication-electronics assets authorized for SMCR units. Increased funding will provide for depot rebuild of additional secondary reparable items that will require fifth echelon maintenance as a result of the training readiness enhancement program.

Funding of $22.2 million in Other Support is budgeted for Base Operations and Other Activities. $11.3 million is allocated for Base Operations. The additional funding increases the contract maintenance and consumable supplies required to support completion of a program begun in FY-82 to provide automated data processing systems at the SMCR unit level to support administration, training, supply, accounting, maintenance management and mobilization and to achieve compatability with active forces. Selected Marine Corps Reserve unit support is also continued through replacement of obsolete and unserviceable plant property to upgrade homesites to satisfy minimum training requirements and provide an acceptable quality of life standard for occupants.

Over half of the funds included under Other Activities ($5.7 million) are devoted to supporting the level of recruiting effort and advertising necessary to attain the planned non prior service accessions and increase the sorely needed prior service input. Additional travel and per diem, required to effectively recruit prior service personnel to fill specific critical hard skills, is included with travel for formal school training for those full-time support Reserve recruiters, not trained in FY-82. $4.2 million is allocated to the operation of the Marine Corps Reserve Support Center in its role as the locus of individual management activity. The remaining $1.018 million encompasses such diverse items as postal expenses, headquarters personnel travel and entry fees for competition in arms.

In summary, Mr. Chairman, the Marine Corps Reserve is continuing to grow in vitality and potential. But, we must not rest on our laurels. It is obvious we must pick up the cadence if the Marine Corps Reserve is to be a fully capable adjunct to the active force. Thanks in great part to Congressional backing, we are moving out to meet the challenge.

DEPARTMENT OF THE AIR FORCE

AIR FORCE RESERVE

STATEMENT OF MAJ. GEN. RICHARD BODYCOMBE, CHIEF, AIR FORCE RESERVE, HEADQUARTERS, U.S. AIR FORCE

Senator STEVENS. General Bodycombe.

General BODYCOMBE. Thank you, Mr. Chairman. Good morning. I appreciate this opportunity to review with you the Air Force Reserve programs for fiscal year 1983.

I am pleased to report once again that the Air Force Reserve is in the best condition in its short 14-year history since restructuring under Public Law 90–168. All units can be mobilized in 24 hours and deployed within 72. The fiscal 1981 end strength was 61,565, which exceeded the programed end strength, and we do not anticipate any difficulty reaching the 1982 average manning level. This will be the fourth year in a row that we have exceeded our program.

As of January 1982 all of our equipped flying units were combat ready with the exception of five which are now converting to newer aircraft. All of our six associate strategic airlift wings are combat ready.

In response to emergency situations, our Reservists in rescue and recovery units enhanced the public image of the peacetime military last year while saving 45 lives and relieving the plight of numerous disaster victims.

The Air Force Reserve is fulfilling its peacetime mission, and we are ready to fulfill our wartime mission. In that context we are requesting an average Selected Reserve strength of 66,000 for fiscal year 1983, which is a 5.5-percent increase over 1982's level, and this is contained in the 1983 Presidential budget.

The Reserve personnel appropriation provides for the pay and allowances of our Reservists during their active and inactive duty training periods, while performing special tours of active duty, and while undergoing school training. The 1983 request for this appropriation is $350 million, an increase of $23 million over 1982. This results from the large increase in strength levels as a result of conversions to more modern weapons systems and the full-year impact of the 1982 conversions, many of which occurred late in the fiscal year.

New missions will also increase our requirement with the addition of almost 800 medical personnel which are related to RDJTF operations and increased requirements for aerial port personnel and civil engineers.

The Air Force Reserve fiscal year 1983 request for O&M is $766 million. This is an increase of $74 million over 1982. This includes a price growth of $18 million. Program increases are the result of a full year's operation of aircraft conversions that occurred in 1982 plus four additional conversions. These four additional are one A–

10 tactical fighter squadron, one C-130 tactical airlift squadron, and the relocation of two existing C-130 units in conjunction with the activation of a new squadron at Peterson Air Force Base, Colorado Springs, Colo. These conversions will enable the phaseout of the last piston-powered C-123 and one of our two remaining C-7 airlift squadrons, and this will continue the modernization program of the Air Force Reserve by replacing older, less capable aircraft.

RESERVE FORCE STRUCTURE

Air Force Reserve force structure in 1983 will consist of 35 equipped flying units and 19 nonequipped associate units. Eighteen of these squadrons fly the strategic air lifters that would be necessary to move the RDJTF—C-141's, C-5's, and the C-9 Nightingale squadron.

We have one new KC-10 associate tanker squadron through which will provide air crews to the Strategic Air Command, and we have 137 combat sustaining units.

On August 30 last year the Air Force Reserve completed the largest training exercise in its history. Known as Condor Redoubt 81, it provided readiness enhancement through realistic training. We tested new procedures to meet congressional and DOD guidance, and we tested and improved the mobilization and deployment capabilities of our force. Equally important, we feel, it enhanced our unit confidence and morale as well as demonstrated to the public at large our force capability.

One of the main reasons we have been so successful over the years in maintaining this combat readiness is our Air Reserve technician program. These dual status individuals perform in both a civilian and military capacity in their units. During the week they provide day-to-day management and administrative continuity. During active and inactive duty training periods they perform as military members of that unit responsible for the training of other reservists.

The high skill level of this technician force coupled with the stability of these fine employees are two factors that are so critical to our sustaining operational readiness. We believe this stability is one of the major reasons why we have been able to attract and to retain individuals who possess these highly technical skills needed to insure our readiness. However, we could experience difficulty in expanding our roles and missions in the future if Air Force civilian ceilings were lowered, since our technicians are included in these ceilings. Consequently, we strongly endorse Air Force ceiling adjustments to accommodate the use of our technicians.

In summary, Mr. Chairman, I have mentioned only a few aspects of our program, but I feel that they are representative of the overall excellence of the Air Force Reserve. We are extremely proud of our flying safety record last year. We only had one class A accident, and we lost one fighter pilot in over 133,000 flying hours. This was the best performance of all flying commands in the Air Force.

The Air Force Reserve today is truly a global force. As a by-product of our training, our units perform day-to-day missions for the regular force in all parts of the world. We have KC-135 crews standing alert on Strategic Air Command bases; our C-130 crews continue to provide airlift in critical parts of Central and South America from Howard Air Force Base in the Republic of Panama. We are proud to say that we support and we share this mission with the Air National Guard's excellent C-130 squadrons. Additionally, we are well along on a program that will build for us 11 modern tactical fighter squadrons by the middle of the decade.

So I will close, sir, on the same note that I began. The Air Force Reserve is fulfilling its peacetime mission, and we are fully ready to accomplish our wartime role. We think this is a solid bottom line in support of the requested programs, and, sir, we thank you and your committee for your tremendous support.

That concludes my statement.

Senator STEVENS. Thank you.

[The prepared statement of Maj. Gen. Richard Bodycombe follows:]

PREPARED STATEMENT OF MAJ. GEN. RICHARD BODYCOMBE
CHIEF
AIR FORCE RESERVE

Mr Chairman and Members of the Subcommittee:

Thank you for the opportunity to appear before this committee to present the Air Force Reserve programs for FY 1983.

It is with great pleasure that I report that the Air Force Reserve attained an end strength of 61,565 in FY 1981, exceeding its programmed end strength of 60,754. This accomplishment was made possible through the dedicated efforts of all our Reserve members.

For FY 1983 we are requesting an average Selected Reserve strength of 66,000, a 5.5 percent increase over the FY 1982 level of 62,571 contained in the FY 1983 President's Budget. These strengths will enable the Air Force Reserve to support the Air Force mission and provide a ready and well-trained force to meet our wartime mission requirements. Briefly, our mission is to develop and maintain a Reserve of trained, operationally ready combat units and individuals who are immediately available for active duty in time of war, national emergency, or to counter other threats to our national security. To accomplish this mission, the Air Force Reserve conducts a comprehensive program of recruitment, training, and operations.

Again this year, I am proud to state that the Air Force Reserve remains ready to fulfill its mission. All Reserve units can be mobilized in 24 hours and deployed within 72 hours. The key to Reserve effectiveness has been, and continues to be, modern equipment and meaningful missions.

Modernization of the airlift equipment will continue with the introduction of our first C-130H unit at Dobbins AFB, GA and our fourth A-10 unit at Richards Gebaur AFB, MO. These actions and the shifting of C-130 assets will enable us to phase out some older, less capable airlift aircraft and allow us to establish ourselves at Peterson AFB, CO, which should be a very favorable recruiting area. I would like to point out to the Committee that after the C-130H conversion, the Air Force Reserve unit at Dobbins AFB, GA, will be equipped below the minimum standard, leading to less than optimum cost effectiveness and operational efficiency. In the FY 81 Defense Appropriation Act, only six C-130H aircraft were designated for procurement by Congress. This is two short of the eight aircraft at our other equipped C-130 units. Two additional C-130H aircraft would be highly desirable in order to upgrade the Dobbins unit to the minimum standard.

We appreciate that Congress has provided additional tactical airlift aircraft for the Air Reserve Forces. I'm referring to the 38 additional C-130H aircraft procured by Congress since 1978; however, the Air Force Reserve has received only six of these aircraft.

A logical and systematic approach for replacing seven C-130A model units in the Air Force Reserve should be established in order to prevent a crisis replacement program in future years. By the end of the present fiscal year, the C-130A model aircraft will have an average age of 24.9 years. If Congress again appropriates dollars to procure new C-130 aircraft in the FY 83 Defense Appropriation these "A" model aircraft would be likely candidates for replacement.

As of January 1982, all of our equipped flying units were combat ready with the exception of five units converting to newer aircraft. These units are:

One A-10 unit converting from A-37s (New Orleans)
One C-130 unit converting from C-123s (Rickenbacker)
One C-130 unit converting from A-37s (Youngstown)
One F-4 unit converting from C-130s (Bergstrom)
One F-4 unit converting from F-105s (Carswell)

All six of our associate strategic airlift wings were combat ready. Additionally, each of the three KC-135 tanker squadrons remains in combat ready status and has crews standing daily Single Integrated Operational Plan alert. Along this line, the first SAC associate unit at Barksdale AFB, LA in the newly acquired KC-10 was activated 1 November 1981, but has not yet begun reporting readiness.

As you know, one of the main reasons we have been so successful in maintaining readiness in the Air Force Reserve is our Air Reserve Technician (ART) program. These dual status individuals perform in both a civilian and military capacity in their units. During the week, they provide day-to-day management and administrative continuity. During active and inactive duty training periods, they perform as military members of the unit, responsible for the training of the other Reservists. The high skill level of this technician force coupled with the stability of these employees are two factors critical to sustaining our operational readiness. This stability is one of the major reasons we have been able to attract and retain individuals who possess the highly technical skills needed to insure such readiness. However, we could experience difficulty in expanding our roles and missions if the Air Force civilian ceilings are lowered, as the technicians are included in these ceilings. Since the militarization of technicians didn't prove successful in the Air Force Reserve, we strongly endorse adjustments to accommodate the use of technicians.

In several areas, as Reservists train, they support requirements that would otherwise have to be fulfilled by active force resources. These are called by-product accomplishments because a productive mission is performed in conjunction with training requirements. For example, in FY 1981, Reserve crews of equipped units airlifted 6,665 tons of cargo, flew 100,467 passengers and air dropped nearly 39,300 troops as a by-product of their normal training missions. In addition, Air Force Reserve associate C-141 and C-5 units flew more than 78,600 hours, and our associate aeromedical evacuation unit flew more than 3,410 missions, airlifting more than 86,600 patients. We also share rotational duty in Panama with the Air National Guard in support of United States Southern Command with six C-130 aircraft and seven crews six months each year.

Reservists provided outstanding support in a new mission providing rescue support for launches and recovery of the Space Shuttle mission at Cape Canaveral, FL. With regard to hurricane tracking, I should emphasize the fact that, for the sixth consecutive year, our weather reconnaissance group flying out of Keesler AFB, MS accomplished at least 70 percent of all hurricane missions in the Gulf of Mexico, the Atlantic and the Caribbean; last year we tracked 10 hurricanes/storms.

In FY 1981, Air Force Reserve rescue and recovery units flew 80 search and rescue missions, logged over 525 hours and were officially credited with saving 45 lives. A particularly noteworthy event was the MGM Grand Hotel fire in Las Vegas where our rescue units were credited with 17 saves and one assist. Our UC-123K units continue to provide the only aerial spray capability in the Air Force. Although the C-123 is being phased out, a few UC-123Ks are being kept to provide spray capability until the completion of a research and development project to modify C-130s for aerial spray. Finally, the experience and skills of Air Force Reserve personnel are valuable assets in supporting Civil Air Patrol (CAP) programs such as cadet encampments, aerospace education workshops, and a wide variety of other special CAP activities.

CONDOR REDOUBT 81, the fifth in a series of annual mobilization exercises, was an outstanding success. Some 59,000 Reservists participated with about 3,000 deploying to other bases. Nearly 200 Reserve aircraft were involved in the total exercise carrying cargo and people, and conducting fighter and rescue operations in a variety of locations in the United States and overseas. Nine hundred medical personnel were part of the Reserve's most extensive training and testing of medical people and the aeromedical evacuation system. In addition, in conjunction with this exercise the initiation and implementation of the first comprehensive mobilization test of individual Reserve resources, was accomplished. Simulated messages were sent to Individual Mobilization Augmentees, Individual Ready Reserve members and retired regulars; the response rate was over 97 percent.

At present, Reservists provide almost 50 percent of the aircrews and approximately 40 percent of the maintenance for MAC's C-141 and C-5 strategic airlift fleet. More than 30 percent of all tactical airlift is provided by the Air Force Reserve. Fifty percent of the crews for SAC's new K-10 tanker/cargo aircraft will be Reservists. Also, with the acceptance of the A-10 fighter, Reservists are flying new first-line fighter aircraft. Currently Reservists contribute almost 60 percent of the Aircraft Battle Damage Repair personnel in six Air Force Logistics command gained Combat Logistics Support Squadrons. The Air Force Reserve also provides 13 percent of all Air Force civil engineers, 10 percent of the RED HORSE manpower and equipment, and 47 percent of the MAC aerial port personnel.

In the Air Force Reserve we have two basic resources - capital and people. People are by far the most important. Only through their dedication to the role of citizen-airmen can we accomplish our primary mission of training for mobilization. Their talent, personal sacrifice and dedication to mission accomplisment were again proven during CONDOR

REDOUBT 81. The wide scope and complexity of the exercise and the professional manner in which it was accomplished attest to our readiness and "can do" spirit as a highly capable force within our country's defense structure. With the continued contributions of time, talent and energy, we will remain a mainstay to the American way of life.

In addition to our unit program, the Air Force Reserve has a successful program to provide trained Individual Mobilization Augmentees (IMAs) to active force units upon mobilization. IMA requirements are identified by grade and skill as part of the annual wartime manpower planning process of the Air Force. IMAs who are members of the Selected Reserve are assigned to specific positions established in active force organizations and are trained and supervised by the active force.

Reservists assigned to Individual Mobilization Augmentee positions are fully qualified in their Air Force specialities. As a result, these Reservists in fields as diverse as medical, legal, research engineering, maintenance and intelligence are able to assist with the day to day mission of their organization while they are on inactive duty and active duty training periods. For example, some of the physicians performing physicals or prescribing medication on a typical Air Force base are IMAs performing their monthly or annual training. As another example, IMAs in the intelligence field are producing standardized critical area intelligence summaries for postulated missions into selected countries. These summaries cover data on geography, population, weather, military capability, and lines of communication. In addition, intelligence IMAs support the Airborne Warning and Control System by analyzing Soviet electronic countermeasure systems against the E-3A Sentry aircraft.

We fully expect to attain our FY 1982 programmed strength of 10,102 IMAs in Pay Groups A, B and D. For FY 1983, we are requesting an average strength of 10,832. The total Air Force requirement for approximately 18,615 wartime IMA positions is indicative of the importance attached to this program. For the past few years, we have been working toward increased manning of these positions consistent with our ability to recruit. This year we are placing added emphasis on recruiting IMAs including the use of bonuses in selected enlisted skills.

Concerning overall manning, I mentioned earlier the very favorable manning posture the Air Force Reserve continues to maintain. We started FY 1981 with a strength of 58,921 and ended the year with an on-board strength of 61,565. This was a net gain for the year of 2,644 people or 4.5 percent. I believe this attests to our ability to attract and retain motivated and dedicated young people. The combination of recruiting efforts and our retention program made it possible for us to exceed our programmed end strength. At the same time we increased the quality of our Force as evidenced by the fact that 95 percent of all non-prior service enlistments were high school graduates. This was a six percent increase over FY 80. Our unit commanders at all levels have taken an active recruiting role. With their enthusiasm and hard work, combined with the excellent performance of our recruiting force, and a continued command emphasis on retention, we will continue to meet our programmed end strength required to support the force structure shown in Tables II and III.

BUDGET OVERVIEW

We finance our programs and force structure in two major appropriations. These are the Reserve Personnel Air Force, Appropriation and the Operation and Maintenance, Air Force Reserve appropriation. The Reserve Personnel appropriation provides for the pay and allowances of reservists during their active and inactive duty training periods; while performing special tours of active duty; and while undergoing school training. The FY 1983 request for this appropriation is $350.9 million, an increase of $23.3 million over FY 1982 requirements. This increase results from the large increase in strength levels (+2,864 end strength and +3,429 average strength) as a result of conversions to more modern weapon systems and the full year impact of FY 82 conversions many of which occurred late in FY 82. New missions also increase our requirement with the addition of almost 800 medical personnel related to RDF operations, and increased requirements for Aerial Port personnel and Civil Engineering capability. ROTC and Health Professions programs rise by $3.6 million. These increases continue to recognize the changing needs of the Defense environment and will provide the Air Force with a better equipped, operationally oriented Reserve Force that can be mobilized immediately.

The Operation and Maintenance, Air Force Reserve appropriation provides for the day-to-day operating expenses of Reserve bases and units, including pay of civilian personnel, aviation and ground fuels, depot maintenance, supplies and other operating expenses required to carry out the Reserve mission of maintaining operationally ready units and personnel. The FY 1983 request for this appropriation is $766.3 million, an increase of $74.3 million over FY 1982 requirements.

The increases in funding requirements in FY 1983 include price growth of ($+18.7M). Program increases amounting to $55.6 million, are the result of a full year's operation of aircraft conversions that occurred in FY 1982 plus four additional conversions in FY 1983. These include F-4 Tactical Fighter units, A-10 Tactical Fighter units and C-130 Tactical Airlift units. Mission increases to enhance readiness and wartime capability occur in C-141 and C-5 Strategic Airlift units, KC-10 program and Civil Engineer, Aerial Port and Aeromedical Evacuation units. Depot maintenance program growth is related to these conversions which result in more modern, sophisticated aircraft. These increases have been partially offset by decreases in units affected by the conversions.

In summary, while the wartime role of the Air Force Reserve continues to expand within the Total Force, we hope to continue to modernize our equipment, improve our management structure and recruit the people needed to assure a fully responsive, combat ready force.

This concludes my statement, Mr. Chairman. I will be glad to answer any questions the Committee may have.

TABLE II
AIR FORCE RESERVE FORCE STRUCTURE, FLYING UNITS

	END OF FISCAL YEAR		
	1981	1982	1983
EQUIPPED UNITS			
C-130 Tactical Airlift	12	13	14
C-123 Tactical Airlift	3	1	0
C-7 Tactical Airlift	2	2	1
Aerospace Rescue & Recovery	4	4	4
WC-130 Air Weather Service	1	1	1
CH-3E Special Operations Force	1	1	1
AC-130 Special Operations Force	1	1	1
KC-135 Strategic Refueling Tanker	3	3	3
A-37 Tactical Fighter	1	0	0
F- 4 Tactical Fighter	3	5	5
F-105 Tactical Fighter	2	1	1
A-10 Tactical Fighter	2	3	4
Total Equipped Units	35	35	35
ASSOCIATE UNITS			
C-141 Strategic Airlift	13	13	13
C-5 Strategic Airlift	4	4	4
C-9 Aeromedical Evacuation	1	1	1
KC-10A Tanker Group	0	1	1
Total Associate Units	18	19	19
TOTAL UNITS	53	54	54

TABLE III
AIR FORCE RESERVE FORCE STRUCTURE, MISSION SUPPORT UNITS

	END OF FISCAL YEAR		
	1981	1982	1983
Combat Logistics Support Squadrons	6	6	6
Aeromedical Evacuation Squadrons/Flights	21	21	21
Medical Service Units	13	15	15
Aerial Port Squadrons	50	51	52
Civil Engineering Squadrons/Flights	35	37	38
Civil Engineering Squadron (Heavy Repair)	1	1	1
Communications Security Squadrons	0	1	1
Numbered Air Forces (Reserve)	3	3	3
TOTAL	129	135	137

DEPARTMENT OF THE AIR FORCE

AIR NATIONAL GUARD

STATEMENT OF MAJ. GEN. JOHN B. CONAWAY, DIRECTOR, AIR NATIONAL GUARD, U.S. AIR FORCE

Senator STEVENS. General Conaway.

General CONAWAY. Thank you, Mr. Chairman and members of the committee. It is a pleasure for me to appear before you on behalf of the Air National Guard of the United States. I might add that General Walker and I just returned from a 3-day working conference with the Adjutants General from the 50 States, District of Columbia, and three territories, and had the pleasure of working very closely on National Guard matters with two very distinguished gentlemen, close friends of yours, General Necrassen, the Adjutant General of Alaska, and the senior Adjutant General among our adjutants general, a super individual, and General Miles from New Mexico, also a most outstanding individual. Both men have added greatly to the readiness of the National Guard. I am also pleased to appear before you two superb Members of Congress because you have two of the finest Air National Guard units that we have within the United States and its territories, with the C-130 unit in Alaska that just received an excellent rating on an Air Force operational readiness inspection.

I also was at Howard Air Force Base in January visiting with them as they were performing some very difficult Central and South American missions.

We are also very pleased with the results of Congress in the Air Force programing of new C-130's which will be going to the Alaska Air National Guard to help them in the important mission that they have and the great distances that they fly. These new C-130's will allow them to work with the Army National Guard as well as the U.S. Air Force and Alaskan Air Command to fulfill their mission there and around the world. We are also pleased that the A-7 unit in New Mexico, which is a member of the Rapid Deployment Joint Task Force and has been to Bright Star 1981, will receive 30-millimeter gun pods next year that will greatly enhance their combat capability.

Sir, the National Guard is part of a State-Federal force. We supplement General Walker and the Army Guard wherever we can in State missions and emergencies, be they natural or man-made, and we are very proud of our relationship of working along with the Army National Guard.

Our mission is training to be ready for our Federal mission. But today our mission is truly global in nature as we are tasked with over 30 24-hour-a-day alert commitments around the world, over two-thirds of the continental air defense commitments as well as SAC strategic alert at 13 KC-135 locations. In addition, today as we attend this hearing, we in the Air National Guard have six C-130's in Central America, six C-130's in Europe supporting Air Forces Europe, KC-135's in the Pacific, Europe, and England, A-7's in Panama and the Pacific, F-4's in Europe, and combat communications and tactical control personnel around the world supporting the Air Force in active missions.

We can truly say the Air National Guard, known as the hometown Air Force, today has a global mission.

We are at the highest state of readiness ever in the history of the Air National Guard. Our current strength is the highest in history at 99,600. Our shortages have been in critical skills, munitions loaders, avionics personnel, photo processors. Two years ago we were only 82-percent manned in critical skills. Today I am happy to say that we are now at 90-percent critical skill manning. I thank this committee very much for your support of our enlistment/reenlistment bonuses and our educational benefits that help us in the Air National Guard. Today we are recruiting with precision for valid critical skill vacancies. That is our No. 1 goal, and the tools that you have given us to do this have allowed us to reach 90 percent now in critical skill manning.

We also appreciate receiving our first F-16's in the Air National Guard that were announced in February, and we hope to have many more F-16 units in the future as they are programed and funded for the Air Force and the Air National Guard and Reserve. The modernization of our fighter force is extremely important to us because as we approach the latter part of the 1980's, the Air National Guard will have over 700 F/RF-4's, and over 500 of those will be in excess of 20 years of age.

We have very modest program growth, Mr. Chairman, in 1983. In Operations and Maintenance, only a 4-percent program growth, and in Military Personnel, a 14-percent program growth. That is primarily due to an increase in our full time military manning associated directly with conversions like O-2's to F-4's, and increases in primary authorized aircraft in several units going from 18 to 24 A-7's and 18 to 24 F-4's. All of our program growth in full-time manning is coming into full-time military manning versus civilian manning.

All of our units in the RDJTF are programed to mobilize within 24 to 48 hours with the remainder of our units within 72 hours.

Sir, I appreciate the opportunity to appear before this committee. I want to emphasize the very close relationship that we have with the U.S. Air Force and with the U.S. Air Force Reserve as we work hard in this Triad to provide the best quality total Air Force that there is in the world today. We could not do it in the Air National Guard or the total Air Force without the strong support of this committee.

Thank you.

[The prepared statement of Maj. Gen. John B. Conaway follows:]

PREPARED STATEMENT OF MAJ. GEN. JOHN B. CONAWAY

DIRECTOR

AIR NATIONAL GUARD

AIR NATIONAL GUARD
OVERVIEW

Mr Chairman and members of the committee, It is my pleasure to once again report to you on the current posture of the Air National Guard.

The Air Guard is at its highest readiness level in history, rapidly approaching a manning level of 100,000 men and women.

The State mission of the Air National Guard is to provide organized, trained, and equipped units to respond to orders of State authorities, to provide protection of life and property, and preserve peace, order and public safety.

The Air National Guard's Federal mission is to provide units properly equipped and trained for prompt mobilization whenever called upon in time of crisis. Our units also perform designated Air Force missions during peacetime, primarily as a by-product of training.

In 1981, the Air Guard achieved the lowest Category A Aircraft Accident Rate in its history with a rate of 1.7 accidents per 100,000 hours of flying. Prevention of accidents requires a positive professional attitude and dedication to make the safety program work. Our people reflect both.

POSTURE

FLYING UNITS

Air National Guard flying units are organized into 24 wings, 67 groups and 91 flying squadrons with more than 1,600 assigned aircraft.

In FY 83, the Air National Guard will receive its first F-16s. The multi-mission F-16 is an exceptional aircraft with a superior technological capability. Its introduction into the Air National Guard is another step forward in the continuing efforts to upgrade mission capability and achieve a general compatibility between Active and Air National Guard aircraft.

In FY 83, the Air National Guard will possess 66 percent of the total Air Force Air Defense Interceptor forces; 54 percent of Tactical Reconnaissance forces; 32 percent of Tactical Airlift forces; 26 percent of Tactical Fighter forces; 17 percent of the Aerial Refueling forces; 14 percent of the Rescue and Recovery forces; 25 percent of Electronic Combat Forces; and 32 percent of Tactical Air Support forces. In addition, five flying units are active members of our nation's Rapid Deployment Joint Task Force (RDJTF).

NON-FLYING UNITS

Equally important to the success of the Air National Guard mission are our non-flying units. There are 243 independent units in the areas of combat communications, weather, tactical control, electronic installation, civil engineering and air base defense.

All combat communications unit assets are designated in the USAF War and Mobilization Plan and most units are specifically tasked to support unified command war plans. Five combat communications units are also members of the RDJTF.

In FY 83, the Air National Guard will possess 70 percent of the total Air Force combat communications forces; 50 percent of the tactical control forces; 55 percent of the electronics installation force and 12 percent of the weather reporting and forecasting forces.

In FY 1982, the Air Guard activated an Air Base Defense Squadron Headquarters and an Air Base Defense Flight. A second Air Base Defense Flight will be activated in FY 83. These units will be equipped and trained to provide ground defense of critical Air Force bases and storage sites in Europe.

REALISTIC TRAINING

Realistic training is best embodied through our participation as full partners with other components in JCS and USAF training exercises. Our increased overseas deployments have furnished us with valuable and realistic training.

To illustrate the Air National Guard's global readiness and the realistic training received, we have recently deployed F-4s to Iceland, A-10s to Germany, A-7s to Italy, and F-105s to Turkey. We also had two KC-135 tankers on constant tasking with the European Tanker Task Force. In the Southern Command region, the Air Guard maintains four A-7s on station at all times in defense of the Panama Canal, maintains two Aircraft Control and Warning Radars in defense of Puerto Rico, and we support airlift requirements throughout Central and South America with six C-130 aircraft.

MANPOWER

The Air National Guard achieved an end strength of 98,293 in FY 81. This is the highest strength level ever achieved by the Air National Guard.

With the help of the Congress, the Air National Guard was able to add 1,000 personnel to our FY 82 programmed drill strength. The Air Guard's revised program is 96,788 drill strength and 3,312 full-time active duty Guardsmen for an end strength of 100,100 and an average strength of 99,500. In the FY 83 President's Budget, we have programmed 96,623 drill strength and 5,158 full-time active duty for a total end strength of 101,781 and an average strength of 101,100. This strength level supports approximately 98.6 percent of the Air Guard's projected wartime requirement.

While the Air Guard's FY 81 strength was above the programmed levels, many critical skills remain well below an acceptable level. With the help of the Congress, we have expanded our enlistment incentive program in FY 82 and FY 83 to address this problem. We fully expect to achieve our strength goals in each fiscal year and anticipate improved manning in the critical skill areas.

A formal Air National Guard Retention program utilizing Base Career Advisors was implemented in May 1981. The retention rate increased from 61.4 percent in FY 80 to 63.1 percent in FY 81. An integral part of the retention program is an effort to retrain certain personnel into critical skill shortage areas. The FY 1983 President's Budget also includes funding to retrain 1,500 individuals. With this level of effort, we fully expect to achieve our stated critical skill goals.

In FY 81, we fully met our combined technician and military full-time manpower end strength. We fully expect to accomplish all programmed technician conversions through further voluntary conversions and technician attrition during FY 82 as well as meeting our full-time manpower strength.

With the Congress permitting us to determine and program the appropriate mix of technicians and full-time military, we plan to voluntarily convert an additional 600 technician positions to military status in FY 83. This will be accomplished in those functions where it is advantageous to have full-time military. We have also requested 1,246 additional full-time military to fill increased requirements associated with aircraft and equipment changes and other support requirements assigned to Air National Guard units.

OPERATION AND MAINTENANCE BUDGET REQUIREMENTS

Operation and Maintenance funding provides for the day-to-day operating expenses of ANG units, including pay of civilians, aviation and ground fuel, depot maintenance of assigned aircraft, supplies, and other expenses.

The following table shows the O&M, Air National Guard funding data for FY 1981-83.

($ In Millions)

Budget Activity	FY 1981	FY 1982	FY 1983
Operation of Aircraft	$ 493.1	$ 531.8	$ 530.6
Logistical Support	207.7	241.0	289.6
Training Support	814.8	871.5	937.9
Service-wide Support	3.0	3.5	3.7
Total	$1,518.6	$1,647.8	$1,761.8

The Air National Guard Operation and Maintenance request for FY 1983 increases $114 million, or 6.9 percent, above the FY 1982 level. Three percent of this growth is price related ($49.6 million), while the remaining 3.9 percent represents program growth ($64.4 million). These increases are required to support the Air Guard's readiness and training requirements as weapons system modernization continues in FY 1983. I will briefly address the major changes within each program of the appropriation.

Operation of Aircraft. This program finances the purchases of aviation fuel for the Air Guard's assigned aircraft. The $1.2 million decrease in the FY 1983 budget request is comprised of an $18.5 million decline in fuel costs due to revised standard fuel prices which is partially offset by an increase of $17.3 million in program growth. The program growth is linked to the annualization of force changes begun in FY 1982 plus additional force changes programmed for FY 1983.

Logistical Support. This program finances the Air Guard's Depot Maintenance requirements to include airframe repair, engine overhaul, and repair of other major components. The FY 1983 budget request is $48.6 million above the FY 1982 level. This increase consists of $32.7 million in program growth and $15.9 million in price growth. Depot Maintenance program growth stems from the increased scope and type of aircraft due Programmed Depot Maintenance (principally the F-4), increased ground communications equipment overhauls, and increased funding for other non-aircraft equipment overhauls caused by increased age and use of equipment.

Training Support. This program finances ANG unit level operations and maintenance activities. This includes the pay of Air National Guard technicians/civilians, operation and maintenance agreements, travel and transportation, rentals, services, supplies and equipment, recruiting and advertising, medical and security support, exercises and deployments, and major repair and minor construction.

The $66.4 million increase for FY 1983 consists of $52.0 million in price growth and $14.4 million in program growth. The major programmatic changes between FY 1982 and FY 1983 include: mobility equipment and supply requirements for combat control, tactical control and RDJTF units; increased exercise participation, new base operating support responsibilities at Duluth, Minnesota, Hancock Field, New York, and Kingsley Field, Oregon, and communications costs for Data Automation activities.

Service-wide Support. Command administration costs are financed in this program. The $.2 million increase for FY 1983 is due exclusively to price growth.

MILITARY PERSONNEL BUDGET REQUIREMENTS

Military Personnel funding provides for the pay, allowances, clothing, subsistence, travel and other expenses of Air National Guard members.

The following table portrays the National Guard Personnel, Air Force funding data for FY 1981-83:

	($In Millions)		
Budget Activity	FY 1981	FY 1982	FY 1983
Unit and Individual Training	$ 273.6	$ 279.1	$ 324.0
Other Training and Support	112.6	147.0	220.6
Total	$ 386.2	$ 426.1	$ 544.6

The Air National Guard's FY 1983 Military Personnel budget request increases $118.5 million, or 27.8 percent, above FY 1982. Program growth is 14.6 percent, while price growth is 13.2 percent.

The appropriation is composed of two budget activities or categories. The first category, Unit and Individual Training, finances those personnel on inactive duty who perform 15 days of training in an active duty status each year (Pay Group A). It also includes basic training for non-prior service enlisted personnel as well as their follow-on training at either home station or formal Air Force technical schools (Pay Group F). Lastly, it includes funding for the pay of high school graduates and seniors who are awaiting entry into basic training (Pay Group P).

The FY 1983 budget request for Unit and Individual Training increases by $44.9 million. This increase consists of $38.3 million in price growth and $6.6 million in program growth. Approximately $6.4 million of the program growth is required for increased strength resulting from: force and mission changes, increased manning levels to achieve wartime requirements, additional aeromedical evacuation crews and personnel on flying status, and an increase in average strength for personnel entering basic training. Other significant program changes include a $4.0 million increase for higher participation rates in Unit Training Assemblies and in exercises and deployments during annual training. This is partially offset by a $3.8 million decrease associated with conversion of Air National Guard Technicians to full-time active duty status. These conversions cause these costs to migrate into our second budget category—Other Training and Support.

Other Training and Support includes formal schooling of our Guardsmen, training costs associated with support of the active force; pay allowances, and other expenses for Guardsmen on full-time active duty; and other costs such as enlistment, reenlistment, and selective affiliation bonuses, survivor benefits, and the student loan repayment program. The FY 1983 budget request for this category increases by $73.6 million above FY 1982. Price growth is $17.8 million, while program growth is $55.8 million. The majority of the program growth ($42.7 million) supports the increase of 1,246 full-time active duty personnel for validated mission requirements and the conversion of 600 Air National

Guard Technicians to full-time active duty status. Other significant increases are for initial skill acquisition training, refresher and proficiency training, and active force mission support.

SUMMARY

The Air National Guard has proven to be an integral part of the Total Force. The Air Guard exists to support U.S. foreign policy and national security objectives, and provides a State militia uniquely qualified for missions within the United States.

The capability of our citizen airmen to respond to the most demanding wartime missions is a matter of record. We appreciate the continuing strong support of the Congress. That support has permitted the Air National Guard to continue modernization and to make significant progress toward our goal of strength through readiness.

SEPARATE PROCUREMENT FOR GUARD AND RESERVE EQUIPMENT

Senator STEVENS. Thank you very much.

Gentlemen, that is good news for this committee. I am sure we want to be more helpful if it is possible.

One of the things that bothers us is that there still is no separate budget justification for Reserve procurement. I would like to know, Dr. Philbin, why is it not a good idea to appropriate specific Guard and Reserve equipment?

Dr. PHILBIN. The position of the Department of Defense has traditionally been that to set out a separate procurement appropriation for the Guard and Reserve components would be administratively burdensome and excessively complicated, and the complications and additional expense would not be justified by the results.

Senator STEVENS. Well, if I understand the position in the statement I have just heard in regard to the Air National Guard, for instance, has 66 percent of the total Air Force defense interceptor forces, 54 percent of the tactical—well, you can go through the list. We are going to come close to the point where the tail is going to wag the dog, if it is not already.

What is your personal opinion, Doctor? I know that is DOD, but what is your personal opinion? Is it not time we recognized where the procurement problems are and appropriate directly to the Reserve and Guard Forces?

Dr. PHILBIN. My personal opinion is that a separate appropriation would be valuable in a number of ways. I think the most valuable benefit would be that it would make visible the procurement plans for the entire force. As it stands now, we are able to identify the procurement plans for the total force, but we cannot delve into it and find out what the plan is for the Guard and the Reserve as well as the active duty.

Now there is no question in my mind that force structuring must be accomplished on the basis of the total force. We cannot have one type of equipment in the Active Force and another type in the Guard and Reserve. We all have to go to the same marketplace, but I do think it would be valuable in order to plan—both in Congress and DOD—to have separate procurement lines. But again I must emphasize that is not the official DOD position.

PROCUREMENT ALLOCATIONS TO GUARD AND RESERVE

Senator STEVENS. If we decided to budget separately, is it possible to give us a statement as to the Reserve procurement that you believe would be allocated and Guard would be allocated under the existing budget?

Dr. PHILBIN. Sir, under the existing budget I could not break out for you equipment which is planned to go into the Guard and Reserve. The budget just is not set up that way at this time.

Senator STEVENS. Well, your force readiness report indicates that component material shortages are particularly acute. General Crist mentioned some of his.

How are we supposed to be able to take care of that? We did reach directly in on the KC-135, but how can be handle these materiel shortages if we cannot compare them to some justification in some procurement request?

Dr. PHILBIN. Sir, I would have to say that would be a very difficult task. At the direction of the Congress we have now produced our first annual series of equipment readiness reports for the Guard and Reserve which identifies equipment on hand and the planned expansions and drawdowns for particular pieces of equipment by component for a 5-year period. However, unless that is tied in with some type of procurement plan, all that does is give you the existing situation and the plan for the following years, and that plan could change in an instant.

Senator STEVENS. Well, now, we have the testimony last year as to what was intended.

Can you give us a statement of what you actually received and believe you will receive in 1982 under the existing system?

Dr. PHILBIN. Sure. We can go into the equipment report and tell you what we did receive, and I think each of the Chiefs could tell you what they plan to receive this year. But I have to say to you that as far as I can determine from the analysis of my staff of the existing budget, there are relatively few major equipment items that are to be specifically procured for the Guard and Reserve.

EQUIPMENT PRIORITIES

Senator STEVENS. There was mention made here—I do not know whether it was you or one of the officers who mentioned the policy—of allocating equipment to the units that were to be utilized first in the event of an emergency.

That is the policy?

Dr. PHILBIN. Yes, sir, it is. It is DOD Directive 1225.6. It has been the policy of the Department of Defense since 1970.

Senator STEVENS. Is that policy being followed now, do you think?

Dr. PHILBIN. Sir, I can tell you that under the present administration we are watching it very carefully, but I cannot tell you that in the past it has been followed. I believe it has not been followed very strictly in past years.

Senator STEVENS. We know there are some elements of the Reserve or National Guard that could be called up before elements of the Army, Air Force, Marines, and Navy for regular service. That is correct, is it not?

Dr. PHILBIN. Yes, sir.

Senator STEVENS. Can you tell us about the status of their equipment and their supplies? Are they at strength, those that will be called up before units of the regular service?

Dr. PHILBIN. Let me answer the question in this way, sir. We are talking about a mobilization period of 90 days. Within 90 days almost all of the Guard and Reserve unit personnel would have been mobilized and deployed. So we are talking about a very short time span.

The units in the RDJTF are intensively managed, and I can be positive in assuring you that although those units are almost up to 100 percent of their requirements, when we start talking about units in the first 30-day slice and then the 60-day slice and the 90-day slice, we are starting to talk about units which are substantially short of the equipment required in a wartime condition.

Senator STEVENS. I think we are most interested in those that will be called up before units of the regular services. I take it those would be in the first 30-day cut.

Dr. PHILBIN. I would say in the first 30-day cut we probably do not have units that are substantially down in equipment. We start getting into severe problems with equipment in the second 30-day period and the third 30-day period.

Senator STEVENS. But as to those units that would be called up before regular units, do you think your equipment is in a state of readiness?

Dr. PHILBIN. I think in the first 30-day slice the answer is yes. When we get into the second and third, I would say we have units that are not up to par.

Senator SCHMITT. If the Chairman would yield.

Senator STEVENS. I would be happy to yield.

NEW MEXICO GUARD FORCES

Senator SCHMITT. I do not know how the New Mexico Army Guard could be called up in 90 days or 120 days or 6 months because they do not have a system that they could use in combat.

Dr. PHILBIN. What Guard, sir?

Senator SCHMITT. The New Mexico Army Guard. They have some logistic support that could be used, the weapons system. The M–42 is not something that I understand would never be used in a modern combat situation.

Dr. PHILBIN. I would agree with that.

Senator SCHMITT. How many units around the country are there that you are anticipating calling up in 90 days that are really not trained in modern weapons?

General WALKER. Sir, you are referring, of course, to the air defense units in your State of which you have four battalions. You were referring to just the weapons. We have four more battalions in the same shape that the four in New Mexico are. The problem with that weapon, of course, is the chassis. The weapon is a terrific weapon, but the chassis is a problem.

The other problem with it is the ammunition which we are vitally short of. At this time I have no programed replacement for it.

Senator SCHMITT. Well, it may be a great weapon, but it is not a great weapon against modern aircraft.

Dr. PHILBIN. I agree with you, Senator. I visited the unit in Albuquerque, and I know what you are talking about.

Senator SCHMITT. It is almost unbelievable to have probably the best air-ground unit in the Air Force, Walker Trophy winners for the last 3 years, side by side with an Army unit that has tremendous tradition and high motivation, high patriotism, ready to do anything you ask them to do, and have them equipped with an M-42, without ammunition, without chassis, and literally without a mission.

U.S. AIR DEFENSE PROBLEMS

We have got to do something. Not only do we have to do something about these units which are ready to work at a lower cost than an active unit, could be ready to move at any time in a modern system, but we have to look at the basic air defense problem we have throughout the total military. We have no close-in ground-based air defense of any significance.

Isn't that correct, with the cancellation or the deferral of the Roland?

Dr. PHILBIN. I would say that is a serious problem area.

Senator SCHMITT. Well, could you describe what we are going to do? It seems we could have a mission for the Reserve or Guard that probably could be done at less cost since you do have many units around the country that could be brought up to speed relatively quickly, and the motivation to do that.

Dr. PHILBIN. Let me explain to you, if I may, that the problem we are facing today is that our requirements far outstrip the available moneys, and therefore the major arguments that we have within the Department of Defense are how to prioritize. There is a complicated system, as you well know, called the planning, programing, and budgeting system utilized to do this, and unfortunately, despite the fact that we have been in there fighting, the Chiefs and I, we did not come out winners on those particular issues.

Senator SCHMITT. Mr. Chairman, I would remind this group who do not have the principal responsibility, but also the subcommittee, that last year's report expressed concern on the long-range impact of the Department of Defense decision to terminate the Roland program and the cutback in the Patriot system, and it goes on to direct that concern at air defense needs in Europe as well as elsewhere. We did ask that a report be made to us during the fiscal year 1983 budget hearings on how air defense needs in Europe will be met in the future. I think that was a little bit too specific. I think we could just say air defense needs in general, ground-based.

I do not know, Mr. Chairman, whether we have received that report or not as yet.

Senator STEVENS. I do not believe we have.

Senator SCHMITT. Maybe the staff could go and check and see whether we expect to get it, but it is I think directly related to our cares this morning. We do have the manpower and the motivation to build and fairly rapidly upgrade our air defense capability by equipping Guard units, procuring and equipping Army Guard units with modern systems, Divad, and I still think the Roland, although expensive, is like so many weapons systems we designed and procured in the last decade is about all we have to buy. It is apparently a pretty good system.

Senator STEVENS. Let me if I may, get into one subject I want to get into. I do not want to belabor it too much.

TROOP LEVELS IN EUROPE

I am still concerned over the troop levels in Europe. I want to know, have there been any studies to determine whether these savings, if we used Guard and Reserve personnel to meet a portion of our NATO commitments on a rotating nation and see what would be—whether there is not a possibility of savings for participation of the Guard and Reserve in meeting those commitments to a percentage, say 10 percent, 15 percent?

RAND STUDY

Dr. PHILBIN. Sir, I only know of one study that has been made on the subject of cost benefits of using the Guard and Reserve for particular missions versus the active duty forces. That was a Rand study in 1975 and 1976, and it was primarily oriented toward the Air Force.

I have now launched my own research study in my small staff, and we are going out to contractors for assistance to do the very thing that you are suggesting.

I am amazed that it has not been done before this, but it has not as far as I know.

Senator STEVENS. Do you have adequate funding for that study?

Dr. PHILBIN. No, sir, I do not.

Senator STEVENS. How would you like to let me know what that will cost? I might give you some assistance on that.

Dr. PHILBIN. I would be happy to do that. Thank you.

[The information follows:]

FUNDING FOR RAND STUDY

The research study titled "Economic Analysis: Reserve Components within the Total Force" is currently underway. I am pleased to report that subsequent to the hearing on May 13, 1982, we received $100,000 which will fund this effort through fiscal year 1982. The study should be completed in fiscal year 1983 and I estimate that it will require the same level of funding. The three products of this study will be: (1) selected case comparisons of costs and capabilities of reserve component and active component by mission assignment, (2) a more general elaboration of fundamental relationships relevant to the reserve components within the Total Force, and (3) a durable and practical set of analytical tools with which to address current and future reserve component decision issues.

MORALE FACTOR IN GUARD AND RESERVE

Senator STEVENS. I believe there has to be a morale factor involved in the Reserve and Guard also. If the training is almost exclusively in this country. We do have South America participation. We have that, had it in the past, but I do not know whether we will have it in the future. It would seem to me that there would be a morale boost of the Reserve and the National Guard if the units had an opportunity to participate in being part of the NATO forces for a period of time. Not a sustained period, but deployment once every 2 years or something of a month to 45 days. I think the cost of the operation, if you look at the overall cost of Reserve training anyway, there should be some offsets, and we ought to be able to meet the obligations of those groups.

Dr. PHILBIN. There is no question that what you say is correct, sir. I have always maintained that Guardsmen and reservists cannot work for pay alone, that part of their psychic salary, as it were, is the equipment that they have to work with, the training that they receive and the missions for which they are responsible. We have found that wherever we do sent units out of the continental limits of the United States, morale has in fact been way up or peaked way up above the amount of money that we spent on them. So it is a very cost-effective way not only to retain people but also to recruit people as well. I think General Walker has a couple of additional points.

OVERSEAS DEPLOYMENT TRAINING FOR GUARD AND RESERVE

General WALKER. Mr. Chairman, this year we are sending through for overseas training 118 Guard units—almost 7,000 people—and we have scheduled for next year, budget permitting, 162 units—over 10,000 people.

This not only gives these individuals the chance to see the environment where they may possibly have to deploy some day and a chance to work for their gaining command, but it also gives us a chance before they are deployed over there to run them through mobilization tests and check them out completely, including their ability to deploy.

We have run tests and now know with a few caveats that we can deploy units directly. That is going to take some doing if we are not up to that point yet, but we know we can do it.

So we are annually sending people for what we call deployment training overseas. Of course, this is something we would like to expand.

Senator STEVENS. I do not understand our situation when we do not get credit against our NATO commitments for such participation. Our NATO allies take credit against their commitments to NATO for their Reserve strength on the theory that they are there and we would have to mobilize ours to get them there. But we could have a participation of Reserve and National Guard in meeting total commitments, and I think at less cost on an overall program.

General, did you wish to comment?

General CONAWAY. I was only going to say, sir, that we in the Air National Guard have responded when the Air Force has asked us, and we or the Air Force have been able to fund the requirement. General Gabriel and General Krosen need C-130's to supplement the Air Force and Army for a 6-week period for some on-going exercises. We have six C-130's for a 6-week period at this time helping with increased training that is taking place. We did perform a mission similar to what you talked about—a 10-year continuous operation called Creek Party. ANG KC-97's in central Europe provided most of the tanker refueling for Air Force fighter aircraft on a continual rotation basis that was similar to what we are currently doing in Panama with A-7's and C-130's.

Senator STEVENS. I would like to see you try an exercise to show how fast you could get men and equipment from Alaska into the NATO command. It has never been done to my knowledge. We have tried it the other way in the Pacific, but I do not think anyone is aware of how fast it can go.

I have to leave, gentleman. I would be very happy if my colleagues would continue the hearing. I know Senator Andrews has some questions.

INFLATION RATE IN GUARD AND RESERVE

I am disturbed about one thing. That is, as I look at this budget I see a 33-percent increase in the overall budget but on O&M it does not even look like it is keeping up with inflation. It is a 3-percent increase over last year, inflation, and I understand it is what, 8.7? What is your inflation rate in the Guard and Reserve?

Dr. PHILBIN. I believe it is about 9 percent, sir.

Senator STEVENS. So that request does not even keep up with inflation, does it?

Dr. PHILBIN. In the case of Reserve personnel, O&M and military construction there is about 6 percent real growth.

Senator STEVENS. Why is that?

Dr. PHILBIN. Actually there is modest program growth in all of the Guard and Reserve personnel and O&M appropriations. Much of the overall increase is for Army Guard and Reserve manpower.

Senator STEVENS. Well, I note the regular budget is $8 billion over for the regular services last year. I cannot understand, what is that, some 20-odd percent? Yours is up 6 percent. It does not seem, if we had emphasis on the Guard and Reserve that I thought we had, that that is a fair allocation of the O&M increase.

Dr. PHILBIN. Well, sir, I will have to tell you there is not much emphasis on the Guard and Reserve.

SUPPLEMENTAL FUNDING

Senator STEVENS. All right, one last question from me, and that is, turning to the supplemental for a minute—and I hope that my colleagues will be with me on the supplemental that we have before us—you have $18.5 million to cover per diem for personnel. Is that to fund my amendment for per diem equity?

Dr. PHILBIN. To fund the amendment, sir?

Senator STEVENS. Fund the amendment we put in the bill last year for per diem equity?

Dr. PHILBIN. It provides only for BAS.

Senator STEVENS. For those in quarters?

Dr. PHILBIN. Yes, sir, it was a result of the direction of Congress to adjust.

Senator STEVENS. Is this known as per diem equity? Is that what that is known as?

Dr. PHILBIN. No, per diem equity would provide full per diem in addition to BAS.

Senator STEVENS. It is not an entitlement of some other kind. This is a funding for per diem equity.

Dr. PHILBIN. There is a total of $28.1 million in the Reserve personnel budgets to cover other pay act entitlements, per diem, BAS, and ROTC scholarship costs.

Senator STEVENS. Fine.

I thank you very much, gentlemen.

Senator ANDREWS [presiding]. Senator Schmitt?

MOBILITY STATUS OF RDJTF

Senator SCHMITT. Gentlemen, the subcommittee was somewhat disturbed yesterday when we received testimony from the regular forces on the RDJTF and it appeared that it was becoming a theater force rather than a force with strategic mobility as its basic war zone entry.

Could you provide your comments from the perspective of the Guard and Reserve as they are integrated into the RDJTF, whether you feel that the planning is becoming focused on the Southwest Asian theater rather than on a general-mobility concept that provides a very broad range of training and capability in all environments, Arctic, temperate, desert, tropic, and so forth?

Dr. PHILBIN. Senator, I think I will defer to one of the military chiefs.

Senator SCHMITT. I wonder if I could start with General Crist to get this committee's feeling that the Marine and Naval forces already provide the beginnings of an RD force.

General CRIST. Sir, as you all well know, from a Reserve point of view we augment the Active Forces. And as we see it, the Active Force commitments and the Reserve commitments are global. It is very difficult to say in what particular location we are going to have the next hot spot. When we were all looking at Southwest Asia, El Salvador flared. Now we have the Falklands, and I do not think anyone in this room would have bet on that 6 months ago.

So from our point of view any Rapid Deployment Force must be exactly that—ready to go any place in the world where the United States thinks its vital interests are concerned.

MARITIME NATURE OF RDF

Obviously from the Navy and Marine standpoint we see the first deployment probably being of a maritime nature, mainly because most of these places are somewhere around the littorals of the world and are therefore maritime. This is much the same as the British have had to do. Historically in response to most of our contingencies the initial forces deployed were carriers and marine amphibious units.

On the other hand, when you decide what is to be done if force commitments are to be made, obviously other forces may be needed such as air superiority forces and ground forces of a heavier nature. Therefore, a Rapid Deployment Force has to be made up of various elements. Then it is a question of how you deploy them and in what sequence they go in.

Senator SCHMITT. You are singing the tune of the subcommittee. However, that is not the tune we heard yesterday. What we heard was emphasis on Army and Air Force units on developing a theater capability in Southwest Asia, and a very, very subordinate capability to deploy anywhere else, and it is seemingly an increasingly subordinate position of the existing RDJTF forces of the Marine Corps and the Navy.

General CRIST. I really cannot comment for the Joint Chiefs, but I have spent some time in Europe and in Southwest Asia, and from my point of view—and it is only my point of view—we are concerned about two basic things in Southwest Asia. One is the oil transshipment points and the other is the sea lines of communications to take it out. In both cases it has to do with the water. So I think you are going to have to pay some attention to that water, the movement that occurs on that water, and the forces that may have to go in and out by water if you are going to achieve some desired purpose.

Beyond that, if we have a contested situation where the Soviets decide to employ larger forces or heavy surrogate forces, one is going to have to look beyond the capabilities of the Navy and the Marine Corps to defend against that kind of threat.

RESERVE PARTICIPATION IN WINTER EXERCISES

Senator SCHMITT. Are your Reserve units participating in training other than desert warfare at this time?

General CRIST. Yes, sir. I have just returned some of my Reserve units from Norway, where they participated in winter exercises with a regular brigade of Norwegians. I had units in Denmark this past summer. Some are going into Turkey, and 1 year from now some will be going to Greece. Meanwhile, this summer I will have two battalions going to 29 Palms for desert warfare training.

Senator SCHMITT. What about tropics?

General CRIST. We just returned a unit last summer from Fort Sherman and the Jungle Warfare Training School.

Senator SCHMITT. What is our feeling about the general flexibility of your Reserve Units? Are they able to adapt fairly quickly to a variety of varied climatic conditions?

General CRIST. In general, sir, we have oriented the Reserve units toward the Active Forces they will be supporting and their general missions. So the ones that are oriented toward the northern flank of NATO are participating with the Active Forces on the northern flank of NATO in cold weather exercises. Those that we think are going with the RDF are working at Twenty-nine Palms in our desert training area.

Senator SCHMITT. But there again you give me that bias that the RDF is a Southwest Asia force, not a strategic mobility.

Do any of the other reservists want to comment on this? Do you feel that your Guard and Reserve Forces are sufficiently cross-trained in terms of climatic conditions and other conditions that they can deploy anywhere where the demand may be created?

ARMY RESERVE UNITS

General BERKMAN. Senator, with respect to the Army Reserve units, our focus has been on developing readiness of those units to perform their wartime missions wherever they are required. A significant effort has been made in the 1982 budget to identify Army procurement dollars to provide the major end items for those Army

Reserve RDF units. In the OMAR account there are provisions for individual clothing and equipment, cold weather clothing and other OMAR-funded equipment.

As far as exercises are concerned, Army Reserve units participate with the active component in major exercises. Those joint readiness exercises tend to be in the desert environment. Limited individual or limited unit training has taken place in the cold weather environment, and I am not sure whether that training involves RDF units. Other than that, I cannot shed much light on the basic question you raise as to the plans with respect to the use of the RDF.

NAVAL RESERVE UNITS

Admiral DANIELS. Senator, as General Crist pointed out, our principal involvement in Naval Reserve would be through sealift. We have very heavy commitments to the Navy, to the Military Sealift Command. I agree with you tht recent exercises and ones planned later this fiscal year seem to emphasize Southwest Asia. However, the Naval Reserve commitment is global. We have people in training to be mobilized to every Military Sealift Command Office and naval control of shipping organization throughout the world.

Senator SCHMITT. That is one of the reasons why the subcommittee put the language in it did last year asking that Naval and Marine forces be considered as the core of the RDF and other units work through them. I realize that creates an interservice rivalry, but we have to look at what is the most effective way and rapid way to bring on strategic mobility.

Frankly, I think the emphasis on Southwest Asia, Mr. Chairman, is another example of fighting the last crisis. We have to be ready to fight any crisis.

General WALKER. Mr. Chairman, we in the Army must be ready for any contingency, wherever it might be. As General Berkman says, what we are training our units to do is to be able to perform their wartime mission wherever they might have to go.

Now we are having training in cold weather areas and in the desert, as I have already described. We are sending units overseas to Europe, to Korea. We are sending Reserves to exercises with Active Army units serving elbow to elbow with them. We are proud to say that all of our RDF units are considered combat-ready in training. I might also add that 84 percent of our units are considered combat-ready deployable as far as logistics are concerned.

So we think that we are properly training these units for any contingency.

Senator SCHMITT. General Conaway?

AIR NATIONAL GUARD INVOLVEMENT IN RDJTF

General CONAWAY. Sir, the Air National Guard has a very heavy involvement in the RDJTF. We have nine major flying units assigned—two A-7 squadrons, two RF-4 squadrons, one EC-130 squadron, three C-130H squadrons, and a C-130E squadron.

RDJTF EXERCISES

When an RDJTF exercise takes place like Bright Star 1981 or Bright Star 1982, we normally program with the Air Force to send those units that are designated as members of the RDJTF. They will participate in training like New Mexico did in 1981 and like our C-130 units from Oklahoma City and Jackson did in 1982. But we also participate in other exercises as well because of the need for aircraft such as A-7's, RF-4's, and C-130's. For example, we are participating in Red Flag at Nellis and Maple Flag, which is a Canadian exercise.

We are also participating in Ocean Venture, the Caribbean exercise taking place which will include some of our RDF units.

CONTINENTAL AIR DEFENSE

Senator SCHMITT. General, a final question. Why should the entire responsibility of the continental air defense not be turned over to the National Guard and Reserve, at least the National Guard?

General CONAWAY. You are speaking of the air defense role?

Senator SCHMITT. The airborne air defense role.

General CONAWAY. The airborne air defense role that we have?

Senator SCHMITT. You said what, 30?

General CONAWAY. We have about 66 percent of the continental air defense.

Senator SCHMITT. Why should you not just take that over and operate it and add to the capability?

General CONAWAY. We probably could if the Air Force and the Department of Defense wanted us to do that. We work a lot better in mission areas where the Air Force is also in the mission as well as the same aircraft and we can work and train together. They are the main component that does the initial training. They run the big network system of NORAD and Air Defense Command that we work under. From that standpoint, not having the structure to take over an entire network like that, we tend to work better when we work alongside the U.S. Air Force. We prefer to work it that way.

Senator SCHMITT. Do you think that the current level is appropriate?

General CONAWAY. I would think it has evolved to an appropriate level. You know, in 1960 the Air National Guard had 40 air defense interceptor units such as our Happy Hooligans in North Dakota. Today we are down to 11 air defense units. In 1960 we had about 40 percent of the capability in the United States. Today we have gone from 40 units in air defense to 11, but we have also gone from about 40 to 66 percent of the air defense commitment.

Senator SCHMITT. That is what is very disturbing, particularly along our southern border, but it is not just there. It is the whole continental region.

General CONAWAY. We are also doing some detached alerts to help the Air Force. Our F-4 units at Selfridge and Portland provide two lines of alert aircraft at Seymour Johnson AFB, N.C., and Kingsley AFB, Oreg. From Fresno an F-106 unit provides aircraft for alert at George AFB, Calif. The detached alerts are in addition to home station alerts at each of these units. In addition, at New Orleans a tactical F-4 unit augments our air defense with two lines of alert. So, we are spreading ourselves to do detached alerts as well as home station.

Senator SCHMITT. Are the new F-16's air defense aircraft, or are they tactical?

General CONAWAY. The ones we are getting at this time are tactical aircraft. We are scheduled in the Air Force program for F-16's in air defense. They should be the F-16's with the updated radar and with AMRAM, but they are not air defense F-16's at the current time.

Senator SCHMITT. Thank you, Mr. Chairman.

Senator ANDREWS. When you say convert the F-16, you know, all this rhetoric is so crazy except if you start taking a close look at it, you have got the air defense capability, you have 65 percent of it for this Nation, and every damned bird you Air Guard people are flying is a 15- to 20-year-old bird. So 65 percent of the air defense of this Nation depends on the rejects the Regulars do not want that finally filter their way down to the Guard and Reserves that know how to fly them better or more on early status and can do it for less bucks.

Why?

General CONAWAY. Sir, regarding your first question, it will be about 3 or 4 years before the F-16's with the air defense capability are available. We are programed for those. The Air Force has made a decision that the F-16 will replace the F-106 and be used for air defense. The Air Force is phasing out most of the F-106's within the next 2 years. Ours will be another 2 years or so beyond them. They are converting to F-15's while the ANG will have an F-16, F-4 Air Defense Force unless we can modernize those F-4's to F-15's or F-16's.

Senator ANDREWS. But again, earlier in this hearing one of you testified that one of the big needs we have is for a separate line item for equipment for the Guard and Reserve so we would know what was happening and we would know what was really going to the Guard and Reserve. This kind of runs into my thinking that they let you guys float around and if nobody pays much attention you do not get anything, and all of a sudden maybe they might send you down some stuff that you have to rework and make fly again, and after you have had it a couple of years, it flies better than it did when the Regular guys sent it down. But this is no way to run an efficient fighting machine as far as I can see—and I know you are limited in what you say.

General CONAWAY. I cannot disagree with you, sir. We normally do receive equipment as the Air Force gets new equipment, and we stay in it a few years longer than they do. However, there is a lot of simultaneous modernization taking place as we did in A-7's and the A-10. You are correct in that it has not happened in the air defense world. We are not being programed for the same aircraft.

AIRCRAFT AGE

Senator ANDREWS. In the air defense capability that you have—and you are providing 65 percent of it—when was the newest plane built that you are using?

General CONAWAY. It probably would be the F-4D, which has been around 16 to 18 years.

Senator ANDREWS. They are almost 20 years old.

General CONAWAY. The F-106's that we will have for another 3 or 4 years are 22 years old.

Senator ANDREWS. And so for the air defense of this country, the people that are actually doing the work have got the oldest equipment and the guys that are playing around protecting Europe or training or what not, but not assigned to a specific defense role in this country have the newer equipment. We have got newer equipment over in Korea. We have got a string of F-15's over there, as I understand it.

General CONAWAY. Right.

Senator ANDREWS. And we have got some F-15's down in San Antonio. Are they designed in the Air Defense?

General CONAWAY. I do not know that they are there. Of course, there are some at Langley Field that are in the Air Defense.

ADDITIONAL ACTIVE UNITS

Senator ANDREWS. Earlier this month, or this year, in fact, March 9, I asked the Air Force representative at one of these hearings about the trend that I could see developing that has them adding six new Active units. Now, they are adding six new active units, regular Air Force, and that is going to soak up even more of this equipment, even more of this personnel, and leave you with that much less to do the mission that you are assigned, a mission where your readiness and all of the rest that has been developed in testimony, not just those of you in the Guard and Reserve—it is unfair to ask you how ready you are. You know, gosh, we do not say who is—but the regulars say it, too. They say you are doing a great job. You know, you have units out in the field and you are doing a great job. But here we find six new Active units coming in the Air Force.

Do you perceive any major effort in the next couple of years to flesh out and send better equipment to your Guard units, I mean more than the usual trickle down?

General CONAWAY. I hope so, sir. There is an effort in the Air Force programing and force structure that we are working right now to program more F-16's not only in air defense but also in the tactical fighter role for the Air National Guard—and also, I hope, more C-130's. You know, our big needs are newer fighters, modernization of our C-130's, and reengining our tankers. We are, thanks to all of you on this committee and the Air Force, getting the first JT3D reengining kits in the Air National Guard.

Senator ANDREWS. But you are moving along, in the first brief answer you gave me, you are moving along at the usual slow pace. There is no rapid—I mean, when you see six new units coming into the regular Air Force, that is a significant push up. There have been no significant plans for the next couple of years for a push up to get you better equipped over the normal trend that we have seen in the last decade, is there?

General CONAWAY. Basically, with the normal modernization trend, you are correct.

Senator ANDREWS. So the push is in the one area, everyone accepts that you are behind in equipment and the rest, and are totally neglecting a force that is there and effective to serve this Nation.

General CONAWAY. We are not getting increased flags at this time in flying. We are getting increased numbers in some aircraft—like F-4D's and F-4C's and A-7's. We are going from 18 to 24 aircraft where the Air Force is fleshing those units out. Our growth in increased combat readiness is coming there, but not in increased flags.

Senator ANDREWS. Recently the National Guard Bureau completed a study called Vista 1999, which was designed to review the probable future requirements that would or could be placed on the Guard for the balance of the 1980's and 1990's.

Do you know to what extent the recommendations of this study have been integrated into the overall planning, Mr. Secretary?

Dr. PHILBIN. They have not been integrated into the overall planning as such, sir, and let me address Vista 1999 if I may. I read it rather carefully. I think there were many, many issues there which have to be addressed and have not been. I think that Vista has identified problems rather that offering solutions. There was also a disturbing aspect to——

Senator ANDREWS. We would add a whale of a lot of solutions.

Dr. PHILBIN. Sir, I think that they came out of context.

Senator ANDREWS. Well, I don't know about coming out of context. They say they ought to create at least two additional Army National Guard division headquarters, provide command and control for other Army National Guard, separate U.S. Army Reserve brigades that may be assigned to them for special missions. They say they ought to create in the Army National Guard one or more extremely light air-transportable infantry divisions, which is exactly what my colleague from New Mexico was just pointing out.

I would look at those as being very specific.

Dr. PHILBIN. They were conclusionary, sir.

Let me say that taken in the aggregate, they also suggest a trend that I think is very unhealthy. The trend is to establish separate equipment and separate mission specialized activities for the Guard and Reserve not shared by Active duty components, and I would suggest that that is probably the worst of all possible ideas. The Guard and Reserve prospered as an organization, and they prospered as a force in the defense of the United States only when they started to become more and more integrated into the war plans of the total force. I would suggest that particular aspect of Vista is not only very divisive but also not very effective militarily.

Senator ANDREWS. For the $50 million in Army procurement funds in the fiscal 1982 bill specifically identified for Guard and Reserve, is this any marked difference from your point of view? Is it a method we should pursue in the fiscal 1983 bill, this specific identification of Guard and Reserve? It flies in the face of what was said a minute ago, but——

Dr. **Philbin**. I can answer it in this way, sir. The Guard and Reserve by our staff estimates are short about $11 billion to $17 billion worth of equipment. Just short. That does not address modernization in any respect. Therefore, anything that we receive of a specific nature of this type we can probably use. But when you start force structuring from outside the total force in large numbers, that could create problems with regard to integration of the equipment into war plans. But at that level of activity I would say that we can use anything that is offered us.

HOSPITAL SHIP CAPABILITY

Senator **Andrews**. Now, we mentioned quite a bit about the RDF mission that the Guard and the Reserves had yesterday. When we had them before us I asked quite a few questions. Some of your capabilities were covered in the questioning by my colleague from New Mexico and of course the chairman. One of the things that they said they had no capability in that deployment force was hospital ships.

Do you have anything in the Reserve or the Guard that would take care of the hospital-ship-type responsibility for this type of rapid deployment force?

Dr. **Philbin**. The answer is no, Senator.

Senator **Andrews**. Well, fantastic. I do not think that in a hundred years of warfare we have made a major military effort without figuring some way of having hospital facilities out in the field, and the Regulars do not have it. They said they were integrating their RDF with the Reserves and the Guard, and the Guard does not have it, it looks like it is more of a paper tiger than we really thought it was yesterday.

The Department of Defense has just earmarked $140 million as budget giveups, making peace with Dave Stockman, I guess; $60 million relates to the Army Reserve full time manning and $80 million relating to paid drill strength.

What are the implications of these voluntary reductions in force readiness?

Dr. **Philbin**. Sir, I am seeing the numbers for the first time. I would defer to any of the military chiefs who would want to answer that question if they have more knowledge about it.

Senator **Andrews**. Well, it is kind of a surprise to us because on this committee everybody has been testifying that in the Reserve and the Guard we get more bang for the buck, they are better trained, they are ready to go. It is tragic that we do not have them well enough equipped so they can do the job even better, and now we find that someone is slipping in cuts as far as full time manning and cuts in paid drill strength, and it just does not fly with the facts.

I think maybe what this committee ought to do is send them a message by gutting those six additional units that they want to put in the regular forces and direct the money back into the Guard and the Reserves. Then maybe they will catch the drift.

ARMY RESERVE

General **Berkman**. Mr. Chairman, with respect, I am Chief of the Army Reserve. In my statement I pointed out that the Army Reserve had the lowest percentage of full-time personnel of the Reserve components of any of the services. The request in the 1983 budget would increase that number of full time personnel. We started at lower than 4 percent, and the 1983 budget would bring it up to approximately 4.8 percent. Over the program we are looking at increasing it to 6 percent.

Senator **Andrews**. But did they consult with you on this $140 million cut they have just told us about?

General **Berkman**. No, sir, I did not participate in that.

Senator **Andrews**. That just came out of the blue, some other expert someplace figured that they want to make a $140 million savings, we take it out of the Army Reserve.

General **Berkman**. With respect to your earlier question, the impact of not supporting that increased full time manning would be adverse on readiness. The full-time manning represents the greatest potential for improving readiness of units.

Senator **Andrews**. But sure, and the whole story we got yesterday on this RDF was that we had to have full time manning so these units that are assigned to it can move forward into the field, and they come up and give us all this hocus pocus, and when we find out that in the back they are cutting the full time manning. You know, it is almost like Alice in Wonderland. You kind of wonder if you are going to come through the looking glass in a sense.

FULL-TIME MANNING AND SUPPORT

General **Walker**. Mr. Chairman, if I might comment for the Army Guard on the full-time support, I consider the full-time manning, full-time support just as important to readiness as the strength of the equipment. You might ask why. Well, first of all, the full-time people. I am sure you know people in North Dakota who are full timers. They are the heart of the development of our unit.

Senator **Andrews**. And they are the professionals that make things go, make the planes ready to fly, keep the trucks ready to roll.

General **Walker**. They tie together the training. They take care of maintenance, supply, administration and pay. They are the cement. As you just said, they are the cement that puts these units together. My No. 1 priority is to put a trainer in every unit, and I had hoped to complete that by the end of 1983. My mission is to train troops to fall in beside the active component when the time comes, and I just think it is imperative I have a trainer in every unit. I am talking about a training NCO in every unit.

Senator **Andrews**. Let me tell you, General Walker, I started out in this Appropriations Committee some 16 or 17 years ago, and the fellow I served under first was a guy by the name of John Rooney from Brooklyn. He was a darned hardnosed practical guy, and the assignment we had back in 16 years of being on the committee of the House, and we dealt with the State Department, all those striped-pants boys that get us into the problems that you have to solve, and they are a lot of fun to have on the other side of the witness table from you, but John Rooney told me the first time I sat in on his hearings, he said, Mark, he says, as long as you serve on the Appropriations Committee, make sure you know the answer to the question before you ask it.

I kind of suspected what your answer was going to be. You have done a pretty good job at giving us a record that we can use when we start marking up this bill and taking it to the floor.

RESERVE PERSONNEL REQUEST

Now, the Reserve personnel accounts for the Army and the Marine Corps include $4.8 million and $700,000 respectively to reinstate a cut made in the fiscal 1982 Defense Appropriations Act. The cut reflected anticipated savings from better drill attendance management. Since the four other Reserve accounts have made the savings, why the request?

General CRIST. Well, sir, there was $.7 million that we have asked back because what it essentially——

Senator ANDREWS. Yes, you got $.7 million, the Army got $4.8 million.

General CRIST. Yes, sir. What it essentially did was cap our drill attendance at 85 percent. That was the level. Unfortunately, our Reserves are attending over 87 percent on the average. I cannot turn them away from drill. The erroneous conclusion of a study done in 1980 was that they were only attending at that level and that our figures were inflated.

Senator ANDREWS. But you normally get cut by the Navy anyway.

General CRIST. You said that, sir.

Senator ANDREWS. Oh, I know I said it. You nodded.

What about the Army?

General WALKER. Sir, I am not sure I understand your question.

Senator ANDREWS. Well, you are requesting a supplemental. We are dealing with a supplemental appropriation.

General WALKER. Yes, sir.

Senator ANDREWS. And you are asking for $4.8 million to reinstate the cut that was made.

General BERKMAN. Sir, I believe the $4.8 million relates to the Army Reserve, and it is the same situation as described by General Crist. We have to pay the drilling reservists and that represents a reinstatement of paid drill for that period.

Senator ANDREWS. $1.4 million is requested under Army Reserve personnel for variable housing allowance.

Why is this additional funding necessary?

General BERKMAN. I believe, sir, that is a requirement under the fiscal year 1981 Pay Act that makes the variable housing allowance applicable to reservists on duty under appropriate circumstances. The $1.4 million represents an increase in the variable housing allowance total based on revised rates.

PLATOON LEADERS COURSE

Senator **Andrews**. $900,000 is being requested in the supplemental under "Marine Corps Reserve personnel for the platoon leaders course." I am sure the platoon leaders course is very important, buy why is it so necessary that we put it in a supplemental? Why does it not have regular funding?

General **Crist**. Frankly, sir, because it did not get into the 1982 budget.

Senator **Andrews**. You mean because it is not included in the 1983 budget?

General **Crist**. The 1982 budget.

Senator **Andrews**. This is a supplemental to the 1982 budget.

General **Crist**. It would be the 1982 budget. The lack of the funds would essentially reduce our planned accessions for this year, fiscal year 1982, by 6 percent.

Senator **Andrews**. But this program was not in the 1982 budget?

General **Crist**. At this level, that is correct, sir.

Senator **Andrews**. Is it in the 1983 budget?

General **Crist**. It is in the 1983 budget at the proper level.

Senator **Andrews**. What happens, Dr. Philbin, if there are not any fiscal 1982 supplemental appropriations?

Dr. **Philbin**. I would say, sir, we would have to cut back on strength and readiness programs.

General **Walker**. Sir, may I add to that?

Senator **Andrews**. Sure.

General **Walker**. If they are not approved, we are going to have to take such actions as stopping drills on the first day of June. We are going to have to stop school training and a lot of other training because we do not have the resources in our program to take it out of.

General **Berkman**. That is true in the Army Reserve. There is just no capability of managing that amount of shortage except impacting adversely on training, including drills.

General **Crist**. Mr. Chairman, with regard to the supplemental, we are now paying the increases; we are paying the pay raises and the temporary lodging entitlements. If we do not get this supplemental, then with whatever months remain in the fiscal year we would have to absorb the cost, and of course there is no way to absorb the $12.9 million for the pay raise. So we will stop.

I will have to stop new accessions, and we will have to stop training. There is no other solution. There is nothing else we can do because it is so late in the year and we have been told to pay at those entitlement rates.

Admiral **Daniels**. We also have plans to take certain actions if that is the case. First, we would make reductions in our ship intermediate maintenance activities. We would intend to reduce the flying hour program which would cut into pilot currency. We would eliminate selected airframes and engines from rework that is presently scheduled to go. Drills and active duty training periods would have to be canceled starting in August. Those are the actions that we plan to take if there is no pay supplemental, Senator.

General **Conaway**. In the Air National Guard, sir, if there is no supplemental—and we have $54 million in for the pay supplemental for Mil Pers and $23 million for O&M, Air National Guard at the current operating rate of business, doing its day-to-day job and alerts—we will basically be out of business around the 15th to 20th of August.

Senator ANDREWS. We have to get a pay supplemental. There is no problem about that, but the program supplemental could well be in jeopardy.

General CONAWAY. You are talking about the program supplemental rather than the pay supplemental.

Senator ANDREWS. The program supplemental is, shall we say, the optional one. The pay supplemental is one of those things that has to be done by law. It is what is known around here as an entitlement.

General CONAWAY. Well, if that is the one, you can disregard the forecast of August 15 to 20. That is without the pay supplemental. If we get the entire pay supplemental without the program supplemental, we can probably come very close in the Mil Pers part of it. The O&M is where we will be tight, and we only have less than $2 million in the Air National Guard.

Senator ANDREWS. You need that pay supplemental, particularly if many of your people are pilots for Braniff.

General CONAWAY. That is correct. Dick Bodycombe and I have several of those who will want to work more for us in the next several months.

Senator ANDREWS. That is true.

Admiral DANIELS. Do not forget us. We also have a few of them.

General WALKER. Mr. Chairman, since I made a pretty blunt statement earlier, let me go back now and explain that, please.

Senator ANDREWS. We like the blunt statements. It is the explanations we do not.

General WALKER. I do not intend to water it down, but of course we have two supplementals, one pay and one program. For the pay one—the National Guard Personnel, Army [NGPA] accounts—if we cannot get the supplemental, we will probably have to stop drills after June 1. In the O&M account our full-time people are affected, and that means that we will have to have a hiring freeze and leaves without pay of up to 10 days. In our NGPA account on the program side this is the question we have talked about previously. This is our per diem and subsistence account. Due mainly to our larger strength, the strength that we did not program for, we would have to reduce our schools and training.

And in the O&M part of the program supplemental this will just reduce our purchase of cold-weather clothing, of chemical defense equipment and other items like that that you specifically gave us an add-on for last year.

SUBMITTED QUESTIONS

Senator ANDREWS. Thank you very much, gentlemen. I appreciate your testimony. We do have additional committee questions which we will submit for your response.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

ADDITIONAL COMMITTEE QUESTIONS

Supplemental Appropriations

QUESTION: $18.5 million is requested in the supplemental to cover per diem to enlisted personnel. Does this funding reimburse enlisted for what is known as "per diem equity" or is this request to fund an entitlement?

ANSWER: The $18.5 million provides only for Basic Allowance for Subsistence (BAS) authorized under DOPMA. It does not provide full per diem for enlisted which was authorized under the Uniformed Services Pay Act and subsequently reduced by the FY 1982 Appropriations Act.

QUESTION: The Reserve Personnel accounts of the Army and Marine Corps include $4.8 million and $700,000, respectively, to reinstate a cut made in the fiscal year 1982 Defense Appropriations Act. The cut reflected anticipated savings from better drill attendance management. Since the four other reserve accounts have made the savings, why the request?

ANSWER: The purpose of the $4.8 million is to pay 6,000 people who were above the budgeted end strength at the end of FY 81. This FY 81 recruiting success created an unfunded requirement for approximately $31.3 million in FY 82. Through a congressional plus-up and an approved internal reprogramming, $26.5 million has been financed. The remaining $4.8 million is the cause for this request.

The Army Reserve has taken aggressive corrective action to eliminate fraudulent drill payment:

. implemented a test "credit card" personnel accounting system.

. implemented a test system to consolidate and centralize pay responsibilities.

. increased emphasis by Inspector General teams.

. conducted unannounced spot inspections

. reemphasized drill attendance reporting policy

QUESTION: $1.4 million is requested under Army Reserve Personnel for the Variable Housing Allowance. Why is this additional funding necessary?

ANSWER: The FY 1982 request for Variable Housing Allowance was based on rates in effect in FY 1981. New rates, based on recent housing cost survey data became effective in October 1981. Estimates based on the rate differential, as well as actual FY 1982 cost data, indicate that an additional $1.4 million is required to fully finance increased Variable Housing Allowance cost in FY 1982. This additional cost cannot be absorbed without reduction to the successful Army Reserve strength program.

CHANGES IF NOT AN FY 82 SUPPLEMENTAL

QUESTION: What programatic changes are likely to take place should there be no Fiscal Year 1982 supplemental appropriation?

ANSWER: The Army National Guard has requested two program supplemental appropriations of $1.5 million and $9.7 million, respectively, and two pay supplemental appropriations of $162.3 million and $20.9 million, respectively. The impact of not receiving these supplemental requests would be a 9 percent reduction in schools and special training attendance, suspension of drills for the remainder of this fiscal year starting 1 June, institution of a hire freeze and up to 10 days leave without pay for the entire civilian work force, and reduction of stock fund purchases in the amount of approximately $1.5 million. Any or all of these reductions would have a significantly unfavorable impact on Army Guard readiness. (Army National Guard)

ANSWER: There will be little or no programmatic changes required should the program supplemental be disallowed. The ANG has sufficient resources to absorb the required $2.2 million supplemental because ANG actual strengths are running slightly behind the programmed level through mid-year. This generates resources to enable absorption of the program supplemental. The slight lag in strength attainment results from use of a precision recruiting program directed towards recruiting only against valid unit manning document vacancies with emphasis on critical skill areas. The ANG anticipates full end strength attainment by year end based on experience which indicates a surge in recruiting during the spring and summer months. However, if the Congress were also to disallow the military pay raise supplemental of $54.0 million there would be a significant programmatic impact on ANG operations. The ANG could not absorb a reduction of this magnitude without severe degredation in training levels. (Army National Guard)

ANSWER: The supplementals fund items which are entitlements under law and must be paid.

If the $9.4 million program supplemental is not approved, school/special and mobilization training would have to be cancelled to cover the deficit. In effect, a 9.4 percent reduction to a training program already reduced from the FY 1981 level.

If the $104.8 million pay supplemental is not approved, all remaining school/special and mobilization training would be cancelled as well as annual training and scheduled drills. If a decision is delayed until 1 July 1982, all remaining annual training and scheduled drills would be cancelled.

Absorption of the FY 1982 supplementals would be devastating to the Army Reserve. Such action would significantly reduce unit and individual readiness, overall mobilization capability, and morale. (Army Reserve)

PROGRAMATIC CHANGES

ANSWER: If there is no O&MNR program supplemental, $.2 million to cover increased contribution rates for the Federal Health Benefits Program will have to be funded by reducing the Yard Craft/Shore Intermediate Maintenance program support for YR 86.

If the $3.247 million O&MNR pay supplemental is not approved, several programmatic reductions must be effected. MRP would be reduced by $1 million thereby eliminating scheduled runway and taxiway repairs at NAS Glenview, the flying hour program would also experience a 1000 hour reduction and three airframes and two engines would be eliminated from rework.

If a pay raise supplemental is not approved for the RPN appropriation, the claimants would be forced to utilize internal reprogramming actions to complete the year within authorized funding levels. The Chief of Naval Reserve, as major claimant, has considered various alternative actions that could be implemented to provide the funding to cover the $28.230 million for the military pay raise authorized by Congress for FY 1982. Due to the magnitude of the pay raise supplemental, no single alternative will provide the required offset. Therefore, a combination of alternative actions involving cancellation of some drills and ACDUTRA periods, cancellation of some fourth quarter scheduled weekend away training sessions, and discontinuation of new affiliations would be needed. (Navy Reserve)

CHANGES IF NOT AN FY 82 SUPPLEMENTAL

ANSWER: Failure to receive 100% funding of the FY 1982 pay raise and program supplemental requests will impact Air Force Reserve programs severely. Should there be no fiscal year 1982 supplemental appropriation, a severe slow down in scheduled training will be necessary. This will result in reductions in exercise participation, scheduled deployment of units, school entries, mandays available for all additional training, and cancellation of training periods scheduled for August and September of FY 1982. (Air Force Reserve)

FY 1983 Technician Conversions

QUESTION: Each reserve component determines the appropriate mix of full-time military and civilian technicians in the guard and reserve forces. What changes are budgeted in fiscal year 1983 as regards converting to or from civilian technicians?

ANSWER: There are no significant conversions planned. Only 600 Air National Guard and 500 Army National Guard conversions are planned through FY 1983. The FY 83 budget request provides for the following:

Technicians

	Actual FY 81	FY 82	FY 83
ARNG	22,585	21,410	20,840
USAR	4,235	5,618	5,818
ANG	21,278	21,125	22,099
USAFR	6,544	7,600	7,800
TOTAL	54,642	55,753	56,557

Cost of Technician Conversion

QUESTION: The conversion of civilian technician positions in the guard and reserves to full-time military was based on the premise that civilians cost more than military. Yet, a comparison of basic pay and entitlements, annual and sick leave, health benefits, PX/commissary privileges and retirement costs indicates that civilians may be cheaper. Please comment.

ANSWER: Constraints on civilian pay raises with no similar constraints on military pay raises have created a situation where the technician may be in some instances less costly than an equivalent AGR. We are looking into the cost factors. Last year's reported $19.5 million per year cost of conversion would be inflated to about $21.4 million for FY82 and still represents a small percentage. However, to enhance the combat readiness of the Reserve Components, the basic compensation for the individual position is not necessarily the overriding factor. To increase the readiness of the Army National Guard and Army Reserve to the same levels as the other components, an increase in full-time support personnel from approximately 4% to 7-8% of the Total Force is contemplated. Each Reserve Component will determine the appropriate mix of full-time military and technicians that will provide the best readiness and meet mission requirements.

Civilian Manpower Ceilings Effect on Technicians

QUESTION: Another reason for converting civilian technicians to fulltime military has been Congressionally imposed ceilings on civilian manpower. What influence do these ceilings really have on technician conversions? What determines which positions will be converted?

ANSWER: Very little. However, the ceilings do play a significant role in determining additional authorizations to accommodate new missions and to enhance readiness. The Army Components in particular are increasing full-time support (AGR) personnel requirements from about 4% of the force to 7-8%. An increase of this magnitude would not be feasible within the civilian ceilings that are traditionally imposed on the Department. We are in the process of determining the appropriate mix. Positions such as those experiencing high technician turnover, hard-to-fill jobs, security/guards, and other positions that require a high degree of military expertise, as well as new authorizations may well be identified as AGR.

Deployment of Full-Time Guardsmen/Reservists

QUESTION: Will full-time military guard and reserve personnel deploy with their reserve units upon mobilization, or will they be used as fillers for active units?

ANSWER: Full-time military guard and reserve personnel who are assigned as unit full-time support will deploy with their units upon mobilization. Individual full-time support personnel will continue their mission and subsequently be reassigned. The FY 1983 budget provides for 85,400 full-time support guardsmen/reservists. 77,500 of these personnel are assigned to a unit full-time support mission.

Assignment of Full-Time Support Personnel

QUESTION: Are full-time military assigned or attached to reserve units?

ANSWER: All full-time AGR personnel are considered to be a mobilization asset. They are either assigned directly to the unit with which they mobilize or to an augmentation manning document and attached to support units so they will not block career progression of drilling Selected Reserve members.

Technician Strength Program

QUESTION: Does the Department forecast the level of civilian technicians to increase or decrease over the next five years?

ANSWER: The level of technicians is programmed to remain relatively stable with a slight growth. The following table depicts the Departments program through FY 86:

Technicians

	FY81	FY82	FY83	FY84	FY85	FY86
ARNG	22,585	21,410	20,840	20,460	19,985	19,985
USAR	4,235	5,618	5,818	6,018	6,218	6,418
ANG	21,278	21,125	22,099	22,630	23,051	23,211
USAFR	6,544	7,600	7,800	7,900	8,100	8,200
TOTAL	54,642	55,753	56,557	57,008	57,354	57,814

QUESTION: Last year, Congress appropriated $50 million for Army Guard and Reserve equipment because the Department failed to budget sufficient funds for this effort. For what specifically has the money been used?

ANSWER: The $50 million appropriation is being used to procure 38 armored vehicle launched bridges, 33 155mm self-propelled howitzers, 42 mortar carriers, and 27 command post carriers.

ROTC SCHOLARSHIPS

QUESTION: When a student enrolls in the Reserve Officer Training Corps (ROTC) scholarship program, he incurs an obligation to enlist in the active force should he voluntarily withdraw during his junior or senior year. Does DOD enforce this obligation? How much money is wasted annually on unfulfilled ROTC scholarships?

ANSWER: We are in full compliance with the point of obligation in the Senior ROTC Program and this is fully implemented. Junior and Senior students who accept ROTC scholarships are now required to sign a contractual agreement which specifies that each will complete educational requirements, and serve on active duty; that if the person fails to complete the education requirements in the agreement, that person will serve on active duty in an enlisted status for a period specified in the agreement.

The Navy maintains 6000 ROTC scholarships which result in almost 5000 new officer accessions every four years. An estimated 250 students are dropped each year for various reasons such as physical disqualifications and poor academic grades. This equated to approximately $725,000 lost each year for attrition.

Drill Attendance

QUESTION: The Committee remains concerned that personnel paid for Guard and Reserve duty do not always attend their drills. What does the fiscal year 1983 budget do to ensure proper management of drill attendance?

ANSWER: The Reserve Components have taken significant actions to improve the reporting system to not only provide more accurate data, but to eliminate the opportunity for paying personnel for drills not attended. The FY 1983 Budget continues to fund improvements made in the past year and as well those systems scheduled for implementation.

In the Army, monthly drill attendance reports emanate from over 7,800 units of the Guard and Reserve. In 1981, the National Guard Bureau instituted an automated system called the Drill Attendance Monitoring Procedure and Report (DAMPRE). This system provides management information which can be used for trend analysis of individual and composite performances. U.S. Army Forces Command is conducting a prototype test of a new concept for capturing and reporting drill attendance for the U.S. Army Reserve called Drill Attendance Reporting Test (DART). Preliminary results indicate improved drill attendance reporting. The decision as to whether or not to extend this procedure throughout the Army Reserve is scheduled for August 1982.

A Defense Audit Service report dated March 1981 documents the reliability of Air National Guard procedures to be accurate within one-tenth of one percent. A follow-on report in August 1981 stated that the system of internal controls in the Air National Guard and Air Force Reserve was generally effective and there were no recommendations requiring management response to the report.

The Naval Reserve uses the Reserve Field Reporting System (RESFIRST). This is a positive reporting system in which units report only those members who have attended drills. After computer processing and payments, feed back reports are provided to the Reserve unit via the parent active support activity where they are verified by active duty personnel.

On 1 January 1982, the old Marine Corps Reserve reporting system was replaced by the Reserve Manpower Management and Pay System. Reconciliation of attendance and payroll by the Marine Corps Finance Center will effect an even more accurate, real time basis for tracking drill attendance.

In addition to the actions enumerated above, each of the Reserve Components is placing increased command emphasis on drill attendance and reporting. Double check procedures have been instituted; unannounced spot checks by higher headquarters, automated management reports provided to commanders; and Inspector General teams have made this an item of the inspection.

DRILL ATTENDENCE PROCEDURES

ANSWER: The Chief of Naval Reserve has reissued policy guidelines relating to drill attendance. This policy is strictly enforced. The specific guidance is as follows:

"Formal musters at quarters will be held by each Reserve Unit Commanding Officer prior to and at the conclusion of each drill period. Each Reservist's physical presence or absence will be recorded on unit muster sheets. The mustering official will personally sign each muster sheet attesting to its accuracy. The Reservist will personally sign his/her drill recording form at the conclusion of the drill period. All drill recording forms will be verified for accuracy before being submitted for payment".

Additional funding has been provided in the CNAVRES O&MNR budget in order that RPN Comptroller personnel may accompany the CNAVRES Inspector General on command inspections. Drill monitoring is a "special interest" item. Surprise inspections are conducted during actual musters. These inspections have revealed the above procedures have been implemented.

Materiel

QUESTION: Why is there no separate budget justification for reserve procurement, since there are those for reserve military personnel and operations and maintenance? Why isn't it a good idea to appropriate specific guard and reserve equipment?

ANSWER: From the standpoint of financial management and fiscal control, the Department's position is that the creation of additional procurement appropriations is undesireable. It would create unnecessary additional administrative and management requirements at a time when we are working to streamline our systems and reduce our overhead levels.

QUESTION: What is your share of this year's weapons procurement?

ANSWER: Based on the Total Obligation Authority distribution included in the Five Year Defense Program for FY 1983, about $3 Billion or 3% of the total weapons procurement is for the Reserve Components.

QUESTION: As stated in the DOD Force Readiness Report of 1982, reserve component materiel shortages are particularly acute. Specifically, what is budgeted in FY 1983 for reserve equipment procurement?

ANSWER: It is not possible to identify major equipment items in most of the Service procurement shopping lists. Primarily, what is reflected in the FY 1983 estimate for the Reserve Components is based on statistical calculations and prorations of calculated spare requirements.

QUESTION: What equipment have the reserve forces actually received during fiscal year 1982?

ANSWER: Actual equipment receipts for fiscal year 1982 are, of course, not yet complete. However, during fiscal year 1981 and through February, 1982 the following new equipment has been reported by the Services as distributed to the Guard and Reserve Components.

Army Guard and Reserve

Item	Number
Computer Set General	1237
Night Vision Goggles	5808
Mortar, 81MM	630
Revolver, Cal 38	946
Radar Chronograph	53
Computer Set Field Artillery	12
Computer DAS-3	8
Container Handler, 50,000 lb	24
Radio Teletypewriter, AN/GRC-142	123
, AN/GRC-122	102
Radio Repeater Set	49
Helicopter, AH-1S	7

Navy and Marine Corps Reserve

C-9B, Logistic Aircraft	1
Radar Chronograph, M90	15

Air Force Guard and Reserve

C-130H, Transport Aircraft	7
A-10A, Close Air Support Aircraft	17
A-7K, Tactical Fighter Aircraft	16
Tropospheric Radios, AN/TRC-97	14
Technical Control Facilities Vans, AN/TSC-62	4
Ground Directed Bombing System, AN/TTC-1C	1

Guard and Reserve Programs - Equipment

QUESTION: What is the general policy on reserve equipment acquisition?

ANSWER: The equipment acquisition policy of the Department of Defense is simple and clear: the units that fight first shall be the units equipped first. That policy applies across the spectrum of the Defense Department equipment acquisition process. Thus, within the Total Force, unitary procurement and multi-year contracts are our equipment acquisition and distribution objectives for Active, Guard and Reserve units.

QUESTION: Specifically, what determines which units have complete inventories and which units are not equipped for combat?

ANSWER: Units identified to fight first are equipped first. However, even though our emphasis and primary concentration of resources are on the early deploying units some still have equipment shortfalls. The situation for later deploying units is progressively worse. The realities of our constrained budget directly impact the amount of equipment that can be procured and subsequently distributed.

QUESTION: Dr. Philbin, you recently testified before the House Appropriations Committee that Guard and Reserve equipment shortfalls of wartime requirements equate to $17.8 billion. Please elaborate.

ANSWER: That figure represents the approximate shortfall between the equipment our Guard and Reserve units now have on hand and what they would require to go to war. Considering the many variables involved (existing sources from which equipment potentially could be drawn, such as war reserve stocks and Prepositioned Materiel Configured to Units Sets ((POMCUS)), etc.), this figure must be taken as an approximation. Also the $17.8 billion does not include modernization, e.g., filling tank shortfalls with the new M-1 as opposed to the older M-60's.

We are continuing to develop approaches for refining our RC equipment requirements. An Army initiative, the Total Army Equipment Distribution Plan (TAEDP), will be sufficiently enhanced by later this year to afford the Army a much improved definition to its equipment shortfall problem. As equipment in war reserve stocks and POMCUS, for example, is "earmarked" for Guard and Reserve units, the dollar shortfall may drop. Conversely, as modernization is increased, the dollar requirements will increase. But in all probability as we modernize, taking into account inflation and the high-dollar costs of many of the shortage items (tanks, trucks, aircraft, communication equipment, etc.), subsequent revisions of the $17.8 billion figure, which we are currently in the process of trying to define more precisely, will be upward.

QUESTION: The Fiscal Year 1983 budget request for Army National Guard and Reserve personnel is $1.7 billion, 30 percent over last year. The O&M request for 1983 is $1.1 billion, 3 percent over last year. Of these amounts, how much is inflation and how much is program growth?

ANSWER: The National Guard Personnel, Army request includes program growth of $181 million and $7.4 million in inflation. The Operation and Maintenance, Army National Guard request includes program growth of -$29.8 million and $64.2 million in inflation. The negative program growth is the result of one time increases in the FY 82 budget which were not included in the FY 83 budget submission.

QUESTION: The budget request for Army Reserve Personnel is $1.2 billion. That for Operation and Maintenance, Army Reserve, is $686.4 million. These are 27 percent and 4 percent, respectively, over last year. Of this amount, how much is inflation and how much is program growth.

ANSWER: The total Reserve Personnel, Army increase is $146.9 million. Of this amount $8.8 million is for inflation and $138.1 million is for program growth. The total Operation and Maintenance, Army Reserve increase is $27.4 million. Of this amount inflation accounted for $41.5 million, while the program decreased by $14.1 million.

INCREASE OF RESERVE COMPONENTS IN NATO

QUESTION: If U.S. troop strength in Europe were reduced by 10 percent, why couldn't the guard and reserve forces be increased concomitantly? What savings could be achieved if we relied more heavily on reserve rather than on regular troops for our NATO contribution?

ANSWER: Our forward deployed forces in Europe currently rely heavily on CONUS based Active and Reserve forces for both the ability to sustain themselves in combat and for reinforcing combat and support forces. While a 10% reduction our Europe-based forces is possible, **[deleted]**. A reduction in Europe forces, and a corresponding increase in RC forces would produce some personnel and operation and maintenance savings; however, there would also be costs associated with this action. These costs would be in the areas of Europe facility closings; recruiting and housing the RC force; possible increases in the Prepositioning of Material Configured to Unit Sets (POMCUS) program; and an increased need for strategic lift. As additional RC force structure would be required to offset the AC reductions in Europe, both forces would be required for the three years it takes to activate and train the RC replacement force.

[Deleted.]

New Equipment

QUESTION: What major new equipment will enter the inventory in fiscal year 1983 of the Army Guard and Reserve forces:

ANSWER: Following is a list of selected systems with validated Distribution Plans for the Reserve Components for 1983:

Item	(USAR/ARNG) Quantity
Armor	
M60A3	3/70
Infantry	
Dragon Night Tracker	14/69
TOW Night Sight	0/282
Bottle Cleaning Station	0/6
Night Vision Device	16/0
Field Artillery	
Howitzer, 155mm, M198	0/23
Aviation	
Black Hawk	4/4
AH-1S, Modernized	0/12
AH-1S	0/14
AH-1G	0/50
U-21	0/6
Communications	
AN PRC-70	132/132
TRC-117/110	35/34
AN/MYQ-4	24/28
VINSON KY57	105/305
NESTOR KY8	920/14
NESTOR KY28	0/302
NESTOR KY38	0/12
Radio, AN/GRC-160	49/164
Radio, AN/VRC-47	45/232
Radio, AN/VRC-46	41/118
Engineer	
Truck, Forklift, RT 4,000 lbs	173/135
Truck, Forklift, RT 50,000 lbs	39/0
Transportation	
M88A1	7/58
CUCV	2/18
Truck, 5 Ton	400/536
Truck, 6x4 M915	0/82
Semitrailer	1030/0
Trailer	139/279
Tank	412/169

1983 Strengths

QUESTION: The requested average 1983 strengths of the Army Reserve and Army National Guard are 258,700 and 407,400, up 8 percent and 4 percent, respectively. What is the total cost of these increases? What positions, specifically, are these personnel expected to fill?

ANSWER: The USAR Selected Reserve Budgeted End Strength for FY 83 is 268,531 with an average of 258,700. This strength is comprised of Paid Drill Strength (PDS) of 251,680, Individual Mobilization Augmentation (IMA) strength of 8600 and 8251 Full Time Support (FTS) personnel. The total cost associated with this strength is $1.0 billion which is an increase of $109 million above the FY 82 funding level. The utilization of these strength categories are:

a. PDS - Reservists assigned USAR structure positions in TDA and TOE organizations.

b. IMA - Preassigned reservists to wartime required positions in Active Component TDA and TOE organizations.

c. FTS - Reservists on Active Guard Reserve status. The majority of these reservists are Full Time Manners filling TDA and TOE positions in USAR organizations. The remaining provides recruiting, retention, mobilization planning and other support functions where Reserve Component expertise is required.

ANSWER: The FY 83 budget includes approximately $193 million for the increase in strength over FY 82. These additional personnel are filling existing vacancies in Army National Guard combat, combat support, and combat service support units. (Army National Guard)

QUESTION: Of all the Reserve Components, the average strengths of the Army Reserve and Army National Guard increase most for Fiscal Year 1983, 8 percent and 5 percent, respectively. Why do these services account for so much of the Fiscal Year 1983 growth?

ANSWER: Although the strength of the Army National Guard began a steep decline in FY 74, the wartime requirements and peacetime authorizations for ARNG personnel remained at a much higher level. Thus, the gap between actual strength and authorized strength widened considerably. The recent strength increases recoup previous lost strength and allow the Guard to move toward required levels.

ANSWER: The projected average USAR Selected Reserve strength of 240,100 and 258,700 for FY 82 and 83 respectively will result in a 7.7 percent average growth. This growth will achieve a TPU end strength of 256,907 which is 85.8 percent of the FY 83 required strength. The achievement of end strength requirement of the USAR, the recruiting and retention capabilities provided by Congress and demonstrated successes have contributed to the Selected Reserve End Strength Objective for FY 83.

ARNG/USAR Personnel Strength

QUESTION: Despite the fact that the Army Guard recruited 101 percent of its FY 1981 goal and the Army Reserve finished at 114 percent of its goal, these forces remain considerably short of their unit mobilization needs. Even if FY 1983 strengths are achieved, selected Army Guard and Reserve units will be 85 percent of wartime requirements. How ready are our reserve units, then, and when can we expect to meet 100 percent of our wartime manpower needs?

ANSWER: Meeting the wartime manpower needs of the USAR, in terms of "trained-in-unit" strength is not expected to occur within the FY 83-87 FYDP period. Given a continuation of the strength gains embodied in the FY 83-87 FYDP, the wartime needs would probably be met in the FY 88 and beyond time frame. Readiness of any military unit involves many factors such as equipment status, training status, and manpower. Readiness also varies by unit and mobilization/deployment priority. In general terms readiness continues to improve as improvements are made in each of the factors in the readiness equation. (USAR)

ANSWER: With an average strength of 85 percent of required strength, the Army National Guard has sufficient personnel resources to meet readiness requirements. Recognize that these assets are not evenly distributed to all units as early deploying units are given priority in fill. Current programed strength increases will achieve wartime required strength in FY 87. (ANG)

QUESTION: The Department of Defense has just earmarked $140 million as budget give-ups, $60 million relating to Army Reserve Full Time Manning, and $80 million relating to paid drill strength. What are the implications of these voluntary reductions on force readiness ?

ANSWER: The proposed budget give-ups in the Reserve Component freeze Army National Guard and Army Reserve end strength at approximately the FY82 level. Specifically it would: freeze the Full Time Manning at the end FY82 numbers; freeze the Paid Drill Strength for the Army National Guard at today's level; and allow a growth of approximately 1000 in Army Reserve Paid Drill Strength. Result is that further progress toward increasing the end strength of the Reserve Components would be deferred for one year. The only implication on force readiness is that the expected improvements from increased Full Time Manning will not be realized.

AMOUNT OF INFLATION IN AFR BUDGET

QUESTION: The budget estimate for Air Force Reserve Personnel is $350.9 million, 20 percent over last year. That for O&M is $766.3 million, 15 percent over last year. Of these increases, how much is inflation and how much is program growth?

ANSWER: The FY 1983 budget estimate for the Air Force Reserve Personnel Appropriation includes $1.2 million for inflation (price increase in commercial transportation required for training travel) and $22.1 million for program growth. The Operation and Maintenance, Air Force Reserve estimate includes $9.1 million for inflation and $65.2 million for program growth.

AMOUNT OF INFLATION IN ANG BUDGET

QUESTION: The fiscal year 1983 budget request for Air National Guard is $544.6 million, 28 percent over last year. That for O&M is $1.8 billion - 7 percent over last year. Of these increases, how much is inflation and how much is program growth?

ANSWER: The FY 1983 budget request for the National Guard Personnel, Air Force appropriation includes an increase of $2.0 million for inflation, $54.0 million for the October 1981 military pay raise, and $64.6 million for program growth above the current FY 1982 appropriation. The Air National Guard's FY 1983 Operation and Maintenance budget request includes $26.2 million for inflation, $23.4 million for the October 1981 civilian pay raise, and $65.8 million for program growth.

AVERAGE AGE OF THE AIRCRAFT

QUESTION: What is the average age of the aircraft in your 1983 inventory? How much of the fiscal year 1983 budget is devoted to aircraft procurement?

ANSWER: The average age of the aircraft in our 1983 inventory is 17 years. The newest is 3 years old and the oldest is 26 years of age.

Requirements for aircraft procurement, modifications and replenishment spares are not identified under a specific Air Force Reserve appropriation. The Air Force Reserve participates in the active Air Force POM process, and aircraft and related requirements are funded from the Air Force Aircraft Procurement appropriation (57X3010).

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QUESTION: Why does the Air Force Reserve plan no conversions of civilian technicians to full-time military, while the Air and Army Guard intend to convert positions in FY 1983?

ANSWER: As emphasized during the FY 79 & 80 Technician Militarization Test, we feel that Military Technicians are the most effective resource for performing our full-time support needs. We have had great success with the Military Technician program since its inception in 1958 and feel that the high degree of combat capability which we currently have is directly attributable to the dedicated, highly-skilled, and motivated Technician force we now have. We see no need, at this time, to make any changes to this highly successful cost effective program. However, the Air National Guard perceives their technician conversion program differently. They believe that the congressional authority to determine and program an appropriate mix of full-time military technicians provides flexibility to more properly meet the many and varied manpower requirements of Air National Guard missions.

50% INCREASE IN ADMINISTRATION & SUPPORT OF AIR GUARD PERSONNEL

QUESTION: Why is there a 50 percent increase in the administration and support of Air Guard personnel? The fiscal year 1982 figure is $89.8 million, while the fiscal year 1983 figure increases to $135.1 million.

ANSWER: The increase of administration and support for FY 1983 is necessary to accommodate the programed strength growth of the Air National Guard full-time active duty program, the conversion of air technicians to full-time active duty and additional enlistment and reenlistment payments required during FY 1983.

PRICE AND PROGRAM GROWTH

QUESTION: The budget request for Navy Reserve Personnel is $641.3 million, 85 percent over last year. The request for Navy

Reserve O&M is $653 million, 14 percent over last year. Of these increases, how much is inflation and how much is real growth?

ANSWER: Of the $266.4 million increase in the RPN appropriation $247.9 million was the result of two Congressional actions: the directed transfer of TAR personnel funding from the MPN appropriation ($238.4 million) and funding to support the authorized full year increase to 94,000 Selected Reserve end strength ($9.5 million). Only $18.5 million (4.9%) of the increase can be attributed to cost escalation and program growth. $4.0 million is inflation and $14.5 million is program growth which is divided between increased Special Training costs necessitated by the strength increase, increased fleet support and exercises, and increased weekend away training travel costs.

In O&MNR an increase of $17.1 million or 3% is attributable to price growth and an increase of $64.8 million or 11% is attributable to program growth primarily in the areas of ship maintenance and, to a lesser extent, aircraft maintenance.

INDIVIDUAL MOBILIZATION AUGMENTEES

QUESTION: The Navy Reserve budget request envisions an average strength increase in individual mobilization augmentees from 320 to 550. These are personnel who train only two weeks annually. What is the total cost of this increase and why is it necessary?

ANSWER: The FY 83 RPN budget requests an additional $253 thousand to support an increased end strength of 30 officers and 170 enlisted Category D Individual Mobilization Augmentees (IMA). This increase is necessitated by recognition of medical requirements supporting NATO contingencies and in support of the Rapid Deployment Force (RDF). The IMA will provide the requisite backfill when the active CONUS medical force is deployed to NATO, RDF or for other contingencies.

AMPHIBIOUS CARGO SHIPS

QUESTION: Four Amphibious Cargo Ships (LKA) assigned to the Naval Reserve Fleet will be returned to the active forces during this year. What is the cost of this transfer and what ships of this type, if any, will remain in the Reserve fleet?

ANSWER: The Navy will request authority to transfer $36.8 million in FY 1983 from O&MNR to O&MN to reflect the reassignment of these four ships. Although no Amphibious Cargo Ships (LKA) will remain in the Naval Reserve Force, there are two other amphibious ships (Landing Ship Tanks) assigned to the Naval Reserve Force.

SCHOOL/SPECIAL/MOBILIZATION TRAINING INCREASES

QUESTION: The fiscal year 1983 budget request for school/special/mobilization training is $25.7 million, an increase of $11 million over last year. To what is this increase attributed?

ANSWER: The FY 1983 budget request contains an increase of approximately $11 million for school/special and mobilization training. Of this amount $.156 million is for inflation and the remaining $10.859 million is for program growth. Program growth is broken down as follows:

Annual Training for members of Volunteer Training Units - $2.873 million.

Increased emphasis is being given to providing active duty for training to members of Volunteer Training Units. A total of

1,400 personnel will train in 1983 vice 335 in 1981 and none in 1982. The budget request for fiscal year 1983 provides paid ACDUTRA for approximately 27 percent of these members who drill in a non-pay status.

	Officer	Enlisted
Total members in VOLTRA units	4,447	834
Number budgeted for Annual Training	1,250	150
Number not budgeted for Annual Training	3,197	684

Annual training for members of the Merchant Marine - $0.591 million.

The Merchant Marine Act of 1936 requires all merchant marine officers on subsidy ships to be members of the Naval Reserve. Of the approximate 3,300 officers in this program only 285 were provided paid ACDUTRA in fiscal year 1981. The fiscal year 1983 request provides ACDUTRA tours for 786 individuals, or approximately 24 percent of the individuals in the program.

School Training - $2.380 million.

This amount is for increased program to provide training to meet specific mobilization billet requirements and to train personnel in new type equipment.

Special Tours - $5.015 million

The fiscal year 1983 budget request provides for approximately a 43,900 manday increase in Special ACDUTRA over fiscal year 1982. Of this increase, 11,200 mandays, or 26 percent of the increase, are for involuntary additional ACDUTRA for mandatory drilling personnel. This will provide funding of 500 tours of 45 days each and equates to approximately 50 percent of the estimated number of obligors who will fail to drill in accordance with their agreement. 22,123 mandays, or 50 percent of the increase, is related to increased support to the fleet and mobilization training. 10,567 mandays, or 24 percent of the increase is for increased requirements related to management of the Naval Reserve and increased ACDUTRA with mobilization sites. Increased deployment of Reserve units to mobilization sites requires intensive advance planning such as pre-cruise conferences and production workload conferences. Involvement of regular Navy activities into the readiness and training of their Reserve assets requires periodic conferences to ensure any problems are resolved prior to commencement of training. Increased participation of Reservists in the management of Reserve programs will ensure that problems related to drilling reservists are voiced by someone who has first hand knowledge of the situation.

INCREASES FOR CONFERENCES AND VISITS

QUESTION: Why does the budget request for "Conferences and Visits" triple from the 1982 figure of $.895 million to $2.5 million for fiscal year 1983?

ANSWER: The fiscal year 1983 budget request provided for an increase in Conferences and Visits mandays of 4,323 over that in fiscal year 1982. The increase in mandays from fiscal year 81 to 83 reflects a 51% increase due to increased training at mobilization sites and in management of Naval Reserve programs. Accomplishment of this training requires more coordination between the INCONUS staff units and the OUTCONUS mobilization activities in scheduling pre-cruise conferences to review training plans of Battle Groups Staff personnel. Also, an increase in coordination is required to schedule the workshops and projects to set up fiscal year 1983 training production, script treatment and site survey of training projects.

INFLATION IN MARINE CORPS RESERVE BUDGET

QUESTION: The total Marine Corps Reserve Personnel budget request is $165.9 million, 20 percent over last year. The O&M request is $48.4 million, 20 percent over last year. Of these amounts, how much is program growth and how much is inflation?

ANSWER: The Marine Corps Reserve Personnel budget request of $165.9 million reflects a 19.5 percent increase over the fiscal year 1982 appropriated amount of $138.7 million. The 19.5 percent or $27.2 million is comprised of the following: $12.9 million for the fiscal year 1982 pay raise supplemental now being paid, $2.7 million fact of life program supplemental, $.1 million discretionary entitlement, $7.7 million or 4.9 percent for real strength growth (build to wartime t/o) and finally $3.8 million or 2.3 percent for inflation of travel, subsistence and clothing.

The Marine Corps Reserve Operation and Maintenance budget request of $48.4 million represents a 20.1 percent increase over the fiscal year 1982 appropriation of $40.3 million. The $5.2 million or 12.9 percent program growth includes $4.4 million in mission forces, $.1 million in depot maintenance, and $.7 million other support, while inflation accounted for a $2.9 million or 7.2 percent increase.

STRENGTH INCREASES

QUESTION: Despite strength increase in the Marine Corps Reserve, skill shortages remain a major detriment to force readiness. $3.1 million is requested for bonuses and educational assistance, 56 percent more than that for last year. Of this amount, how much is targeted to overcoming reserve skill shortages?

ANSWER: The $1.122 million increase in the fiscal year 1983 budget for bonus and educational assistance provides $264 thousand for increased new bonus payments. The remaining $858 thousand is to fund anniversary payments due previous fiscal year bonus enlistees. Accordingly, there is only a 24% "program increase" in fiscal year 1983, vice a 56% "program increase." The entire "program increase" in fiscal year 1983 is targeted to Reserve skill shortages.

Incentives

QUESTION: Since $2 million is being spent on bonuses and educational assistance for this year, and shortages continue, are these incentives ineffective?

ANSWER: Since the inception in mid fiscal year 1979 the bonus and educational assistance program, authorized by the Congress, has enabled the Marine Corps Reserve to recruit over 1,250 non prior service personnel and retain over 1,500 prior service personnel in skills that are short within the Marine Corps Reserve. Although, unquantifiable, without the bonus and educational assistance program the number of personnel recruited/retained to the levels indicated above would have been significantly less and therefore, skill shortages would in the aggregate be greater than they are at the present.

$1,2 Million Bonus Funding

QUESTION: General Crist, you state that neither enlistment nor reenlistment bonuses are successful in recruiting/retaining requisite reserve personnel. Since $1.2 million is requested for fiscal year 1983 bonus funding, would we be better off using this money for increased training and readiness-related items? At what point do we recognize dollars alone will not guarantee manpower needs?

ANSWER The premise of this question is based upon a misreading of the statement submitted to the committee. The Marine Corps Reserve is presently 2,900 Selected Reservists short of the wartime requirement. Total manpower, however, only represents part of the equation. It is equally essential that the proper mix of skills and ranks be attained. Neither can be accomplished without a full range of incentives to recruit and retain the necessary Reserve manpower.

Pay Group P

QUESTION: Why the 74 pecent increase in Pay Group P funding for fiscal year 1983? (FY 82, $.245 million; FY 83, $.427 million). These personnel are high school students who enlist in the reserves before graduation and await basic trainng for reserve duty.

ANSWER: The 74 percent increase in Pay Group P funding is due to a 72 percent increase in average strength and a 2 percent inflation adjustment for subsistence and clothing costs. The 72 percent increase in average strength is based on actual attainment in FY 1982 which is carried as a bow wave into FY 1983. The Pay Group P strength revision is displayed below.

	Presidential Budget FY 82	Revised FY 82 Actuals	Presidential Budget FY 83
October	111	111	308
November	102	102	317
December	123	104	339
January	201	123	336
February	253	346	510
March	303	*428	624
April	320	401	603
May	395	395	578
June	353	351	525
July	349	320	457
August	313	303	307
Sep 30, 1982	281	281	281

* Actuals thru March

Using actuals thru March and calculating average strength for the last half of FY 82 indicates an increase of 157 Pay Group "P" personnel. This 62% projected increase will carry into FY 1983.

This program is a recruiting incentive offered to attract high quality accessions and meet programmed non-prior serve (NPS) accession goals. Attainment of the NPS goal is now 107% of plan. This trend, probably caused by various economical factors in the private sector is expected to continue into FY 1983.

IRR Bonus

QUESTION: General Crist, you state that the Individual Ready Reserve (IRR) bonus is necessary to overcome personnel shortages in this manpower pool. Yet, Congress did not authorize this bonus beyond fiscal year 1981. If legislation reauthorizes this bonus, what is its expected cost? Since the bonus was unsuccessful before, why should it be reconsidered?

ANSWER: In fiscal year 1981 the IRR reenlistment bonus was exceptionally successful for the Marine Corps, achieving 210% of the original goal, despite a delay in implementing the program. Through this program, 1,271 reservists were retained in the IRR in a six month period alone. If legislation reauthorizes the IRR bonus, the expected cost will be $1.2 million each year during the program years if the bonus level authorized in fiscal year 1981 remains the same.

Equipment Shortfall

QUESTION: At the end of fiscal year 1981, the shortfall for ground equipment for the 4th Division/Wing Team was $546.2 million. How much of the fiscal year 1983 budget is devoted to overcoming this equipment shortfall? Why do we still have a $516 million equipment shortfall in fiscal year 1983?

ANSWER: The FY83 budget provides for a 5.2 percent reduction in the equipment shortages of the Marine Corps Reserve. The $516 million equipment shortfall is that portion of the requirement which remains unfunded.

Secondary Items

QUESTION: What portion of the fiscal year 1983 budget request goes for secondary items? Why does the Marine Corps project a $96.4 million shortfall in secondary items?

ANSWER: As a result of funding shortfalls in previous years, significant deficiencies exist in secondary items to support Marine Corps Reserve requirements. The FY83 budget provides for a 30 percent reduction in the secondary item shortfall. The $96.4 million shortfall in secondary items is that portion of the requirement which remains unfunded.

Major Materiel Problems

QUESTION: Please highlight the major materiel problems in the aviation forces, along with the fiscal year 1983 funding initiatives designed to overcome them.

ANSWER: The Marine Reserve aircraft inventory consists of attack aircraft that are 14 to 17 years old, fighters that average 16 years of age, and transport helicopters that average 14 years of age. The most critical shortages exist in the KC-130 (refueler/transport) and the AH-1 (attack helicopter) communities. Adding the four KC-130s appropriated through Congressional foresight in FY-82, there still remains a shortfall of 17 aircraft to complete the squadron at Glenview, Illinois and standup a second squadron at Stewart Airfield, New York. The single Marine Corps Reserve attack helicopter squadron in Atlanta has only eight of the 24 aircraft authorized. There is an urgent need to increase the helicopter anti-tank capability in the Marine Corps and this is an ideal mission for the Reserve. Funding to alleviate aircraft shortages, however, could not be accommodated in the FY-83 budget. FY-85 is the earliest these initiatives could be considered due to funding constraints.

QUESTIONS SUBMITTED BY SENATOR KASTEN

Guard and Reserve Programs - Equipment

Question: Dr. Philbin, you indicated the policy that Guard and Reserve units scheduled to be called up first in an emergency would get priority in equipment modernization. Where do the Wisconsin units fall in your mobilization plans? Under what circumstances and in what time frame would they be called up? Would you provide a breakdown of their equipment status. What overall percentage of each units' requirements are currently met? Would you also provide a breakdown of major specific equipment requirements for each of these units and what percentage of these requirements are currently met?

Answer: Of the thirty-one TOE units in the WI ARNG, sixteen units mobilize early in an emergency situation. Of eighty-four WI USAR units, twenty-two mobilize early. A listing of these units with their equipment on hand status follows:

[Deleted.] [Deleted.]

[Deleted.] [Deleted.]

*C-1: 90% of requirements filled to at least 90% .
C-2: 90% of requirements filled from 80% to 89%.
C-3: 90% of requirements filled from 65% to 79%.
C-4: Does not meet minimum criteria for C-3.

Answer: The Air Reserve Forces have 4 major* units in Wisconsin. All are needed early upon mobilization. A listing of the units and their equipment readiness status follow:

AIR FORCE RESERVE

[Deleted.]

[Deleted.]

[Deleted.]

[Deleted.]

QUESTION: In your testimony you state that "during FY 82, seven additional AH-1S aircraft are scheduled to be transferred from the Active Component." You also state that "eight of the ARNG attack helicopter companies and six of the air cavalry troops are projected to have the resources necessary to accomplish mission-related training by the end of FY 83; however, many other units will not have the AH-1S system and must continue to train with nondeployable aircraft." What companies will receive the AH-1S?

ANSWER: Thirty AH-1S are currently scheduled to be received from the Active Component in FY 83. The helicopters are currently scheduled to be issued to the following units in the quantities indicated:

7 each	Co D, 26th Aviation Bn (Atk Hel) FLARNG
7 each	Co D, 38th Aviation Bn (Atk Hel) MOARNG
7 each	Co D, 149th Aviation Bn (Atk Hel) AZARNG
2 each	278th Armored Cavalry Regt (ACR) TNARNG
7 each	107th Armored Cavalry Regt (ACR) OHARNG

QUESTION: How will you determine which companies receive the AH-1S? In making this determination, do you take into account each unit's record; for instance, the extent to which they have met their manpower requirements? As I'm sure you're aware, Company D of the 47th Army National Guard Division operates out of Madison. It is currently operating at 100 percent strength. It collectively has over 30,000 hours of combat time, much if it in the Cobra, and an average maintenance experience level of 16 to 18 years. It is virtually impossible, however, to maintain high morale among men of this experience when they are forced to work with obsolete equipment. I'm very concerned that we risk losing highly competent Guardmembers, both in my State and others, because of this problem. And I would certainly hope that the record of individual units is taken into account when you determine which units receive updated equipment.

ANSWER: Selection of units to receive the AH-1S is based on personnel, logistical and training readiness of the unit, readiness level of the parent unit, and mission priority of the parent unit. All Army Guard attack helicopter and air cavalry units were prioritized using these factors. All factors were equally weighted, with the exception of the priority of the parent unit. This component was given a weight of two. The priority of the parent unit, the 47th Division, is established by the Army leadership, based on mission requirements and total Army priorities. In the case of the unit in question, the determining factor was the priority of the division of which they are part, not because of any shortcoming in the unit itself.

LOCATION OF REENGINED KC-135s

QUESTION: As you know, the Senate Armed Services Committee recommended authorization of funds appropriated last year to reengine KC-135s with the JT-3D engine. It also authorized $115 million for reengining an additional 28 KC-135s with this engine. I realize that 24 of the KC-135s included in the FY 82 budget have been designated for Air National Guard units in Utah, Arizona and Tennessee. Where will the remaining four reengined KC-135s authorized for 1982 be located?

ANSWER: The Air Force has not yet determined the location for the final four reengined KC-135s pending the outcome of the FY 83 budget. It is neither operationally practical nor mission effective to assign these four aircraft to a unit that has aircraft that have not been reengined.

LOCATION OF 28 AIRCRAFT

QUESTION: If the Senate recommended action is included in the final FY 83 authorization bill, where would you expect the 28 aircraft to go?

ANSWER: The Senate recommended action will permit the re-engining of four additional Air National Guard or Air Force Reserve KC-135 units. The location of these units has not been released by the Air Force. All ANG units will be examined for operational capability, mission requirements, local environmental impact and community support in determining which units will receive the JT3D reengined KC-135s. We would anticipate an announcement on those locations subsequent to the FY 83 Defense Appropriations Bill.

AIR GUARD UNITS UP TO FULL STRENGTH

QUESTION: Are the funds added by the House Armed Services Committee for additional A-10s in FY 83 and FY 84 sufficient to bring all Air National Guard Units equipped with these planes up to full strength?

ANSWER: All Air National Guard A-10 units are fully equipped with the authorized number of A-10s. The Air National Guard currently has four units equipped with 18 A-10s and one unit with 24 A-10s. The 30 aircraft added by the House Armed Services Committee would be sufficient to increase all of the ANG A-10 units from 18 to 24 aircraft. While the House Armed Services Committee addressed the issue of using prior year funding to increase the procurement quantity in FY 83 and for advance procurement in FY 84, there are insufficient funds to procure the additional A-10s.

COST TO OPERATE ANG UNITS

QUESTION: I understand that it is no more expensive for an ANG unit to operate a full unit of 24 aircraft than one with only 18. Is this correct?

ANSWER: The Air National Guard estimates that it costs approximately $3.6 million more to operate a 24 PAA A-10 unit than it does an 18 PAA unit. The increased cost stems from additional flying hours and manpower requirements.

COMPLETION OF A-10 DELIVERIES

QUESTION: If the House recommendation is included in the final FY 1983 authorization, how soon would delivery of the A-10s be completed? In what order would the understrength ANG units receive the A-10s?

ANSWER: The A-10s recommended by the House would be delivered by December 1985. All ANG A-10 units are at the current authorized strength. The four ANG units which may have the potential to build to 24 A-10s are the 104 Tactical Fighter Group, Barnes, MA; 103 Tactical Fighter Group, Bradley, CN; 173 Tactical Fighter Group, Baltimore, MD; and the 128 Tactical Fighter Wing, Madison, WI. The final order of assignment of any additional A-10s has not yet been determined.

QUESTIONS SUBMITTED BY SENATOR STENNIS

Guard and Reserve Programs - Equipment

Question: Dr. Philbin, the Fiscal Year 1982 Appropriations Act included $50 million in a new, dedicated account for Army National Guard Equipment. The Administration has not requested funding for this account in Fiscal Year 1983. I believe you will agree that the Guard has been plagued by shortages of equipment. If so, why was funding not requested for this account in Fiscal Year 1983?

Answer: We are currently reviewing this question with the Army Secretariat and anticipate being able to provide you an appropriate answer in approximately three weeks.

Percentage of Funds for Guard and Reserve

Question: Your statement mentions that about five percent of the FY 1982 DoD funds are for the Guard and Reserve Forces. Yet about 39 percent of the total force personnel are members of the Guard or Reserve. Do you believe this amount is adequate when we consider that many of the Guard and Reserve Forces are designated for early mobilization?

Answer: It is somewhat dangerous to form conclusions on the adequacy of Guard and Reserve resources based on raw percentages. For example most of the equipment acquired by the Reserve Components is originally budgeted as active force procurement. These items do not reappear in the request for budget authority when they are transferred at a later date. No Research and Development costs are allocated to the Reserve Components, even though they eventually derive benefit from Research and Development. If you compare the areas of military personnel and operation and maintenance which is relatively a straightforward comparison, the percentage of the FY 1983 DoD budget dedicated to the Reserve Components is 11% and 7% respectively.

The Reserve Components have a serious problem with equipment shortages. However, they are not unique in that respect since the active force is also equipment short. If it takes additional dedicated funding to assure that the total force is equipped in consonance with its mobilization priorities, I would be in favor of a change in the ratio of resources.

Historical Percentage of Funding for Guard and Reserve

Question: How does this percentage of DoD funding compare with prior years? A good comparison would be a year prior to Vietnam, a peak Vietnam year and Fiscal Year 1980.

Answer: In responding to this question, the historical summary of the Five Year Defense Program has been used. Over a rather long period of time many budget and costing changes will have had some effect on the accuracy of year to year comparisons. However, these comparisons should be reasonably valid.

Reserve Component
Percentage of Annual TOA
($ Mil)

Fiscal Year	Total TOA	Reserve Component TOA	%
1965	49,561	1,779	3.6
1969	77,755	2,134	2.7
1980	142,206	7,868	5.5
1983	257,983	13,170	5.1

Proposal to Increase IRR Strength

Question: Would you comment a bit further on the comprehensive package of initiatives which the Department has developed to increase the strength of the Individual Ready Reserve and the Inactive National Guard.

Answer: A comprehensive legislative proposal was forwarded to the Congress on April 7, 1982, that provides for the military service obligation to be extended from six to eight years for new enlistees. This is the long-term solution to increasing IRR strength. During the interim period, the proposal includes enlistment and reenlistment bonus authority to increase significantly IRR strength until the extended service obligation becomes effective. The Army is also planning to begin an IRR direct enlistment program in FY 1983. This program will increase IRR strength by allowing an individual to enlist, attend initial active duty training, then return to the IRR for the remainder of the service obligation and attend periodic refresher training. In addition, a proposal is also being studied that would extend the Servicemen's Group Life Insurance program to IRR members. It is expected that this combined approach will eliminate the pretrained manpower shortages by the late 1980's.

QUESTION: General Walker, the Defense Authorization Act, 1982, directs the submission by the Secretary of Defense of a written report concerning the equipment of the National Guard for each of three succeeding fiscal years. I believe this requirement reflects the concern of Congress that the Guard is receiving adequate consideration for funding of modern military equipment. Have you reviewed the initial report and is it your opinion that the information provided in the report will assist in ensuring that the Guard receives adequate funding commensurate with your responsibilities as a member of the Total Army force structure?

ANSWER: I have reviewed the report you refer to and appreciate the concerns of the members of Congress in ensuring that the Army Guard receives its appropriate share of modern equipment. The report, as is stated in the introduction, does not identify all of the equipment which will be provided to the Army Guard. In the past we have received equipment having a value of nearly $500 million each year. The report describes less than one-fourth of that dollar amount as scheduled this year. I am convinced that the leadership of the Army will provide at least as much equipment as they have in past years to the Guard and that my units will be provided for at a level appropriate to their mission and priority in the Total Army.

QUESTION: I believe in 1981, the Guard was short over $3 billion in procurement items needed to meet wartime Table of Organization and Equipment (TOE) authorized requirements. Has the situation improved in the past year?

ANSWER: Although the Army Guard was provided the nearly one-half billion dollars in equipment I just mentioned, the value of shortages remains essentially unchanged. This is because the Army National Guard structure has changed, requiring more equipment, and in some cases, different types of equipment to meet mission requirements. The Guard's role in the Total Force has grown. As a result, the impact of additional equipment is not as visible as it might otherwise be. I assure you that equipment is coming to the Guard, and the improvements are very real. I would like more equipment faster, but recognize the intensive competition for resources throughout the Defense establishment and the Federal Government as a whole.

CATEGORY A AIRCRAFT ACCIDENT RATE

QUESTION: General Conaway, I note that the Air Guard in 1981 achieved the lowest Category A aircraft accident rate in its history. How does the rate of 1.7 accidents per 100,000 hours of flying compare with the active Air Force experience?

ANSWER: Throughout the years, the ANG Category A aircraft mishap rate has closely paralleled the experience of the active Air Force. The ANG mishaps are also included in the overall USAF statistics. In 1981, the Air National Guard achieved an all time low Category A aircraft mishap rate - 1.7/100,000 hours of flying time. The USAF in 1981 achieved its second lowest Category A mishap rate - 2.4/100,000 hours of flying time. The Chief of Staff, United States Air Force, selected the Air National Guard to receive the Major General Benjamin D. Foulois Memorial Award/Daedalian Flight Safety Award for its achievement in 1981.

WHAT AIRCRAFT WILL BE DEACTIVATED

QUESTION: As the Air Guard introduces the F-16 aircraft into its inventory, what aircraft will be deactivated?

ANSWER: At this time, only one ANG F-16 conversion has been announced. The 169TFG, McEntire ANGB, SC will convert from the A-7 in FY 4/83. The A-7 assets from McEntire will be distributed to the remaining 14 ANG A-7 units as backup aircraft. In addition, six aircraft will be assigned to the 192TFG at Byrd Field, Richmond VA, to increase unit equippage from 18 to 24 A-7 aircraft. No aircraft is deactivated concurrent with the introduction of the F-16 into the Air National Guard.

RDJTF GUARD TRAINING

QUESTION: Several of your flying units as well as several combat communications units are members of the Rapid Deployment Joint Task Force. Do members of these units receive additional training periods beyond that scheduled for other elements of the Air Guard?

ANSWER: Members of the RDJTF were not programed to receive additional training periods in FY 82. However, they did receive additional training through participation in exercises such as Bright Star. In FY 83 the Air National Guard has programed special training workdays for RDJTF members in addition to their participation in exercises. These workdays will be used in areas such as intelligence briefings on current world situations.

PROBLEMS WITH MANNING CRITICAL SKILLS

QUESTION: You indicate some difficulty in manning critical skills. What incentives are you using to address this problem and when will you reach an acceptable level of critical skill manning?

ANSWER: Since 1 Oct 79, the Air National Guard has increased manning in critical skill areas from 80.6% to 89% as of 31 March 1982. Our recruiting efforts have been directed to fill UMD vacancies with particular emphasis on critical skill shortages. An important factor in this success has been our effective use of the various Congressionally approved Incentive Programs such as cash bonus, educational assistance, student loan repayment, and affiliation bonus. Our goal is to attain 100% of our wartime personnel requirements. We anticipate steady progress in resolving critical skill deficiencies. Reaching an acceptable level of critical skill manning is dependent on several factors. One aspect is the status of the economy which in its current state has a positive effect on our recruiting and retention programs. A key item will be the continued availability of the Incentive Programs. In addition to these factors, we are programmed to increase our end strength from its current 100,000 level to over 112,000 in 1988.

CONVERSION OF TECHNICIAN POSITIONS TO MILITARY STATUS

QUESTION: Your statement mentions the voluntary conversion of an additional 600 technician positions to military status in FY 1983 in positions where it is advantageous to have full-time military. What type positions are we speaking of?

ANSWER: The ANG had previously mentioned that 600 voluntary technician conversions would be permitted in Aircraft Operations, Military Personnel, Comptroller and Supply functions. After careful reevaluation, the ANG is now considering voluntary technician conversions in functions and units with frequent deployment requirements.

INCREASE IN THE AVERAGE FLYING HOURS PER PILOT

QUESTION: The active Air Force is requesting funding to support an increase in the average flying hours per pilot per month. What is the average rate per month for Air National Guard pilots and how does this relate to the average for the active Air Force pilots?

ANSWER: The Air Force does not track average flying time per month of its pilots in the aggregate because of the differences in missions, tasking, aircraft capabilities and sortie durations that exist between aircraft. The following data compares the average flying time per month of AF and ANG pilots in common weapon systems. This data reflects end FY 81 averages.

Aircraft	Active Duty	ANG
F-4	14.1	9.4
RF-4C	17.8	12.0
O-2A	22.3	12.7
C-130	27.6	15.5
KC-135	17.8	14.5

SQUADRON AUGMENT UNITS

QUESTION: Admiral Daniels, personnel assigned to the Reserve's Squadron Augmentation Units (SAU) are often not trained on aircraft they would use in wartime. At present, there are no units using A-6, S-3 and F-14 aircraft as these aircraft are not available in Reserve Force Squadrons. I understand that the requirement exists for Reservists to augment active squadrons during mobilization. How would the Navy fill the personnel slots required?

ANSWER: The Navy currently has not structured the billets you describe into Naval Reserve units because of the lack of availability of the A-6E, S-3A, and F-14 aircraft in the Reserve Force. A CNO study group is currently evaluating all available training alternatives, and will soon publish a report that will recommend specific long-term as well as interim solutions to the problem.

QUESTION: Won't similar situations develop as new aircraft enter the active Navy inventory?

ANSWER: The Secretary of the Navy has stated in previous testimony to the Congress that in the future new aircraft will be "horizontally integrated" into the active and Reserve forces simultaneously, thus precluding a reoccurrence of the problem. In fact, F/A-18 aircraft are currently programmed into the Reserve force very early in the procurement cycle. In the event that the active force were to receive a new aircraft that did not enter the Reserve inventory, measures would be taken concurrently with fleet introduction of the aircraft to allow for the training of Reservists filling required billets.

QUESTION: What long-range alternatives have been considered by the Navy to alleviate these shortfalls?

ANSWER: The optimum long-range solution is to have identical, modern aircraft in both the active and Reserve force. The early introduction of F/A-18's into the Reserve force is indicative of our interest in providing new aircraft for SAU training. A limited trial program in which P-3C training of Selected Reserves is done by the gaining command at NAS Jacksonville, FL., will determine the feasibility of this approach. Some of the P-3C augmentees performed their two-week annual training with their gaining command which was deployed to Bermuda. Preliminary review of this affiliation concept indicates that while it is apparently successful on a small scale, it may not be the prudent training alternative for the full program due to the increased training and administrative load on the gaining command, especially in view of the deployment and at-sea schedule of the active force squadrons. The traditional approach whereby the

Chief of Naval Reserve administers the Selected Reserve Program is sound and proven as evidenced by the generally high state of readiness of the Reserve Force Squadrons. Consequently, it would appear that what ever new ideas are formulated to upgrade SAU training, the prime responsibility for administration and training will remain with the Chief of Naval Reserve.

Reorganization of Army Reserve Command Structure

QUESTION: General Berkman, the Army has conducted an in-depth study of the command structure for the Reserve Component forces. Would you comment on the problems that the proposed reorganization of the Army Reserve command structure is designed to solve?

QUESTION: How would the proposed reorganization place more units under active Army headquarters?

QUESTION: Greater force integration of the active and reserve forces into a total force has been a goal of the Army for many years. The proposed reorganization would transfer command of Numbered Armies and Army Readiness and Mobilization Regions from active duty Army General officers to Reserve Component General officers. How can this move strengthen integration of the Reserves with the active forces?

QUESTION: What are the estimated savings of the reorganization proposal?

QUESTION: How will the Army use the 19 Army Reserve Commands which are slated to be eliminated under the reorganization proposal?

ANSWER: The particular proposal you speak of is Reorganization of the Army Reserve (ROAR). The ROAR proposal was not an in-depth study but a brief outline of a concept. However, this proposal is no longer actively under consideration by the Army Staff. In response to numerous criticisms, the Army Staff has initiated a study to conduct an in-depth review of the Army's management structure in the continental United States to include management of the US Army Reserve. Several distinctly different proposals are being considered. Subsequently the Army Staff was tasked by the Senate Armed Services Committee to respond to the following issues by 1 December 1982:

1. The differences between the Army Reserve and the Air Reserve that require such dramatically dissimilar command structures.
2. An explanation of the continued need for the command structures represented by the three continental US Armies (CONUSAS).
3. The extent to which the assistance provided to Reserve units by purely administrative headquarters, like the Readiness Regions, is duplicated by that offered by the gaining commands to which reserve units would be attached upon mobilization.
4. The rationale for not eliminating the 19 Army Reserve Commands altogether, or at least replacing them with smaller, more efficient organizations.
5. The justification for maintaining responsibility for Reserve personnel management in the Office of the Deputy Chief of Staff for Personnel rather than in the Office of the Chief of the Army Reserve.

LESS PROBLEMS IN EQUIPMENT SHORTAGES

QUESTION: General Bodycombe, your statement mentions that "equipment shortages generally are less of a problem than in other Reserve Components." Why is this? What does the Air Force Reserve have that the other Guard and Reserve components are missing?

ANSWER: The active Air Force has recognized the need for a strong, well equipped and maintained reserve component and has been fully supportive in providing both the mission and the resources to do the job. Thus, the Air Force Reserve is a full partner with the active Air Force in the Total Force. Equipment shortages are equalized so as not to create a deleterious condition on either the regular or reserve component.

Units Tested

QUESTION: General Crist, your statement mentions that 54 percent of the Marine Resrve units tested were fully combat ready. Are you optimistic that this percentage will increase?

ANSWER: Yes I am. Thus far this Fiscal Year, 8 aviation units have been evaluated and all were fully combat ready. Evaluation of the ground units is not slated to begin until June. I am confident that increasingly effective training will reflect an improvement in the percentage of units that are fully combat ready in Fiscal Year 1982.

Designations

QUESTION: What is the difference between the designations "combat ready" and "deployment ready"? I note that 81 percent of the units were "deployment ready".

ANSWER: "Deployment readiness" is concerned with unit preparedness to mobilize rapidly and deploy to the Station of Initial Assignment (SIA). It is tested by the Mobilization Operational Readiness Deployment Test (MORDT). The MORDT is a system set up to evaluate a unit's administrative and logistical readiness for mobilization and its emergency recall and embarkation procedures.

"Combat readiness" is concerned with the ability of a unit to perform its mission in a "real world" tactical environment. It is evaluated by the Marine Corps Combat Readiness Evaluation System (MCCRES). The MCCRES is identical for the active and Reserve forces. The MCCRES itself is a system which provides approved standards of tactical performance based on assigned missions. Utilizing a standardized evaluation process and reporting system, it provides feedback to the units evaluated indicating areas of strength and weakness.

SUBCOMMITTEE RECESS

Senator **Andrews**. The subcommittee will stand in recess until Wednesday, May 19, at 10 a.m. when we will receive testimony on pay bonus issues.

[Whereupon, at 11:45 p.m., Thursday, May 13, the subcommittee was recessed to reconvene at 10 a.m., Wednesday, May 19, 1982.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1983

WEDNESDAY, MAY 19, 1982

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The subcommittee met at 10 a.m., in room 1114, Everett McKinley Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens and Rudman.

GENERAL ACCOUNTING OFFICE

STATEMENT OF DR. KENNETH J. COFFEY, ASSOCIATE DIRECTOR (MILITARY), FEDERAL PERSONNEL AND COMPENSATION DIVISION, U.S. GENERAL ACCOUNTING OFFICE

ACCOMPANIED BY:

JAMES JOHNSON, STAFF, FPCD, GENERAL ACCOUNTING OFFICE
NORMAN ROTH, FPCD, GENERAL ACCOUNTING OFFICE

PAY AND BONUS ISSUES

BUDGET REQUEST

Senator STEVENS. Good morning. We are here to receive testimony on military pay and bonus issues for fiscal year 1983.

The budget request for military personnel is $44.9 billion, 18 percent more than last year.

In addition, we will consider today the fiscal year 1982 military pay program supplemental request for $4.5 billion and $367 million, respectively.

Our witnesses this morning are representatives from the Department of Defense and the General Accounting Office.

Gentlemen, we have your prepared statements and they will be incorporated into the record.

The General Accounting Office is here specifically to present its findings on the aviation officer continuation bonus, a $50 million program for fiscal year 1983. Accordingly, we will consider this program first.

Dr. Coffey, please briefly summarize your presentation for the committee. Following that, we will turn to Dr. Korb's statement and the Department witnesses who are here.

We are pleased to have you. I am sure you realize we are in session. I am sorry for the attendance again, but that is a fact of life lately.

INTRODUCTION OF ASSOCIATES

Mr. COFFEY. Before I summarize my statement, I would like to introduce Jim Johnson, of our staff, and Norm Roth. Both of these gentlemen have worked on this particular analysis.

AVIATION OFFICER CONTINUATION BONUS PROGRAM

Our analysis of the bonus program, aviation officer continuation bonus program, was initially undertaken at the request of your colleague, Senator Exon, who questioned whether the Navy and the Marine Corps have used the bonus authority as the Congress intended that it be used—that is, as a retention incentive, selectively applied where shortages of officers with critical aviation specialists exist and targeted to critical career points where bonuses could be expected to influence retention behavior.

Our work highlighted eight areas of concern:

CONCERNS OF BONUS PROGRAM

First, we found that in implementing the bonus authority, both the Navy and the Marine Corps treated it much like long-term career pay. They designated the entire aviation community, which included several pilot and NFO specialists, a critical shortage area, making all those within the community with more than 6 and less than 16 years of aviation service eligible to receive the bonus.

Generally, these are people in grades O-3 to O-5, captain through lieutenant colonel in the Marine Corps and from lieutenant through commander in the Navy.

Based on these bonus implementing procedures, the Navy and the Marine Corps during fiscal year 1981 entered into agreements with about 6,000 aviators, at a cost of slightly more than $100 million to be paid out over 4 years. The bonuses averaged about $18,000 and ranged as high as $39,000.

Second, despite the payment of bonuses to this group, we found neither the Navy nor the Marine Corps had experienced or anticipated experiencing shortages of NFO's—Navy flight officers.

Third, we found that while the Marine Corps has a pilot shortage, it is concentrated at junior officer O-1 and O-2 levels, a problem more of training output deficiencies which cannot be addressed by the retention bonus program.

Meanwhile, the Marines continue to pay bonuses to more senior aviators even though they have enough to meet their needs.

Fourth, we found, in contrast to the Marine Corps, the Navy has had a pilot shortage at grade O-3 and O-5 and thus in order to determine whether the bonus payments were helping the Navy to overcome this problem, we analyzed current and historic year-to-year continuation rates, the proportion of aviators who continue on serving into the next year.

Our work showed that in fiscal year 1981 the bonus had improved retention among aviators with 6 to 8 years of service. This is the most critical shortage area. At the same time, however, it showed that in the ninth year and beyond the continuation rates have been and are very high and there is little room in those years of service for the bonus to improve retention.

Simply put, if continuation rates are already in the 97 and 98 percentile ranges, as they are for Navy aviators who are in the 14th and 15th year of service, the number of aviators who are convinced to stay in the service by the bonus can be quite small.

Fifth, we recognized that a much more refined analysis should be done to determine whether all specific pilot specialists—jet, propeller and helicopter—should have qualified for bonus payments. In this regard, we noted that in a recent interview, Secretary Lehman stated that the retention of helicopter pilots in the Navy is even higher than the retention of NFO's, a group to which the payment of bonuses we already have questions.

Sixth, we also recognized that the Navy consistently used many aviators to fill nonaviator positions, the so-called general-service positions. If these aviators were returned to aviation duty, there would be no overall shortage of aviators and no need whatever for the bonus program.

Seventh, we disagree with the Navy's claim that it kept an additional 489 pilots and 110 NFO's as a direct result of the bonus program. We agree that some pilots and NFO's have remained, but in our estimate the numbers gained were slightly less than one-half of the numbers claimed.

Lastly, we noted that aviators with many years of service who would almost certainly remain for the full 20-year career were receiving large retention bonuses. For example, at the extreme we noticed that two individuals, both NFO's, one with 15 and the other with 16 years of active duty service, were awarded bonuses of $24,633 and $38,990, respectively, as an incentive to remain in the service for another 4 to 5 years. This is because the Public Law allows payment of bonuses based on years of aviation service, not years of total service, and these are cases—and there are some 400 like cases—of aviators who have previously had either enlisted service or nonflying officer service.

In summary then, Mr. Chairman, for the reasons stated we believe the Navy and the Marine Corps have not judiciously managed the aviation continuation bonus program. They are paying bonuses to all aviators with 6 but not more than 16 years of aviation service, regardless of whether these aviators are in aviation specialties which have critical shortages or there is a reasonable opportunity for the bonus to influence retention behavior.

We believe that as a result of this across-the-board approach to managing the program, as much as $81.6 million of the $102.9 million committed during fiscal year 1981 has been and is being unnecessarily spent.

If the Navy and the Marine Corps are allowed to continue their current management practices, many more millions of dollars will be unnecessarily spent in this and future fiscal years.

We believe that the aivation bonus authority serves a useful purpose and should be extended beyond September 30, 1982, when it will now expire, because of the pilot shortage problem in the Navy. However, we firmly believe that any extension of the authority should be contingent on the Navy and the Marine Corps developing new implementing instructions which will pay: First, bonuses only on verification of need; second, be targeted to the specific aviation specialties where critical shortages exist; and third, selectively apply at the critical retention points early enough in the aviator's career so that payment of the bonus could reasonably be expected to influence retention behavior.

COMMITTEE ACTION IN REVISING BONUS PROGRAM

We recognize that the reauthorization of the bonus program is not the responsibility of your committee; nevertheless, there are options open to your committee to encourage the Navy and the Marine Corps to more judiciously manage the program and to require more thorough oversight by the Office of the Secretary of Defense. These options include placing restrictive language in the appropriation bills which will prohibit the use of funds for the payment of bonuses beyond the eighth or ninth year of active duty service, and to aviators in specific pilot and NFO specialties where shortages and retention problems have not been demonstrated.

The committee could also require that the Assistant Secretary of Defense for Manpower, Reserve Affairs and Logistics annually certify the shortages claimed by the services in each pay grade are critical to the services' ability to carry out their mission and that no other more cost-effective solution to the problems can be found.

Mr. Chairman, that concludes the summary of my statement. My colleagues and I will be happy to answer any questions you may have.

[The prepared statement of Dr. Coffey follows:]

PREPARED STATEMENT OF DR. KENNETH J. COFFEY
ASSOCIATE DIRECTOR (MILITARY)
FEDERAL PERSONNEL AND COMPENSATION DIVISION

GENERAL ACCOUNTING OFFICE

Mr. Chairman and Members of the Subcommittee:

It is a pleasure to appear before you today to discuss a most important topic; the implementation of the Aviation Officer Continuation Bonus Program. As you are well aware, the judicious use of this bonus authority by the Navy and Marine Corps has been of deep concern to many Members, both within the House of Representatives and the Senate, particularly as both bodies look for ways to reduce Defense spending through management improvement initiatives.

Our analysis of this bonus program--initially undertaken at the request of your colleague, Senator Exon--shows that many millions of dollars have been, and will continue to be, unnecessarily spent unless the Congress takes action to require that the Navy and Marine Corps use the bonus authority as the Congress intended that it be used. The legislative history of this bonus authority is quite clear; the bonus was to be used as a retention incentive, selectively applied where shortages of officers in critical aviation specialties exist, and targeted to critical career points where a bonus could be expected to influence retention behavior. Despite this very explicit congressional guidance, the Navy and the Marine Corps have not judiciously managed the bonus program. Both services continue to pay bonuses, averaging over $18,000 per recipient and ranging as high as $39,000, to aviators who are not in aviation specialties where there are critical shortages or who are beyond the point in their career where retention historically has been a problem.

WHAT ARE THE NAVY AND MARINE CORPS AVIATOR SHORTAGE PROBLEMS

The purpose for paying pilots and Naval flight officers (NFOs) something in addition to their Regular Military Compensation is to enable the services to retain for a full career the number and quality of such aviators they need for both flying and nonflying positions. Prior to 1981, the only such added payment was the Aviation Career Incentive Pay (ACIP), commonly called "flight pay." In 1981, however, the services requested, and the Congress approved, the Aviation Officer Continuation Bonus. Because the Air Force did not choose to participate in the bonus program, and was subsequently barred from doing so by Public Law 97-60, my statement focuses on Navy and Marine Corps program implementation.

The rationale advanced by the services for the bonus program was the growing shortage of pilots brought about by the difficulty they were having retaining them through their prime flying years. The services also had small shortages of NFOs, but these shortages were not cited.

As I just mentioned, the legislative intent on how the program should be managed is very explicit, and the Defense Department (DOD) echoed this intent in their implementing policy directive. It states that:

> "The continuation bonus shall be used selectively where shortage of officers qualified in critical aviation specialties exist, or are projected, and shall be limited to critical retention points where the bonus can be expected to affect retention behavior."

Despite the congressional intent and DOD's guidance, however, neither the Navy nor the Marine Corps applied the bonus selectively or only at the critical retention points. Instead, they have treated it much like a long-term career pay, designating the entire aviation community--which includes several pilot and NFO specialties--a critical shortage area and making all those within the community with more than 6 and less than 16 years of aviation service, who meet the other legislative criteria, eligible to receive a bonus. Generally, aviators who fall within the 6 to 16 year window of eligibility are in grades 0-3 to 0-5. Within this window, the services established a declining bonus payment schedule, with the highest amounts going to those in their 6th to 8th year of aviation service who commit for 4 years, and lower amounts going to those with more years of aviation service and those signing up for less than 4 years. The maximum bonus payment is computed by multiplying the aviator's basic pay by 16--4 months of basic pay for each obligated year. Bonuses are paid in four equal annual installments.

Based on these bonus implementing procedures, the Navy and Marine Corps, during fiscal year 1981, entered into agreements with 5,864 aviators. The total cost of these agreements will be $102.9 million, to be paid out over a 4-year period. The length of commitments made ranged from 1 to 4 years, with about 3 years being the average. Summary fiscal year 1981 bonus activity data for each service is in appendix I to this statement.

Similar new commitments are being made this fiscal year to be paid out through fiscal year 1985; however, because this fiscal year is still in progress, we did not obtain current year bonus activity data.

Navy and Marine Corps NFO shortages

Neither the Navy nor the Marine Corps have experienced, or anticipate experiencing, serious shortages of NFOs. Furthermore, our analysis of the NFO specialties showed that retention of NFOs has not been a problem and that year-to-year continuation rates have been near or above 90 percent, even in the vulnerable 6 to 8 years-of-service period where high losses usually occur. (See appendix II.) Since we could find no critical shortage of NFOs and since retention of officers in these specialties left very little room for a bonus to influence retention behavior, we concluded that paying bonuses to officers in the NFO specialties is inconsistent with legislative intent and good management practice and that the entire $32.9 million committed by the Navy and Marine Corps in fiscal year 1981 for NFO bonus payments has been, and is being, spent unnecessarily.

Navy and Marine Corps pilot shortages

Both the Navy and Marine Corps, however, have, and will continue to have, overall pilot shortages, although the Marine Corps shortage has not been as severe as the Navy's, and is concentrated in the 0-1 and 0-2 levels. (See appendix III.) To see more precisely where the pilot shortages were occurring, we obtained data by grade on fiscal year 1981 pilot requirements and inventory. This is shown in tables 1 and 2.

Table 1

Fiscal Year 1981 Navy Pilot Requirements and Inventory

Grade	Requirements	Beginning Inventory	Shortage (Overage)	Ending Inventory	Shortage (Overage)
0-3	4,695	2,895	1,800	3,030	1,665
0-4	2,798	2,544	254	2,566	232
0-5	1,851	1,376	475	1,416	435
Total	9,344	6,815	2,529	7,012	2,332

Table 2

Fiscal Year 1981 Marine Corps Pilot Requirements and Inventory

Grade	Requirements	Beginning Inventory	Shortage (Overage)	Ending Inventory	Shortage (Overage)
0-3	1,104	1,212	(108)	1,194	(90)
0-4	780	918	(138)	921	(141)
0-5	388	411	(23)	424	(36)
Total	2,272	2,541	(269)	2,539	(267)

As this data illustrates, the Navy has had consistent pilot shortages in the officer grades 0-3 to 0-5. However, the picture in the Marine Corps is considerably different. For at least the last 2 years, the Marine Corps has had a surplus of pilots, as compared to requirements, in grades 0-3 to 0-5.

Marine Corps officials acknowledged that insufficient pilot training rates, and not shortages of pilots in grades 0-3 to 0-5, have caused their overall shortage problem and that this is a problem of recruiting which cannot be addressed by the bonus program. They contend, however, that paying bonuses to pilots in grades 0-3 to 0-5 has helped them keep some pilots who would have otherwise left the service, and they contend that retaining any additional pilots, regardless of whether they are at grade levels where surpluses exist, has improved readiness.

We do not debate the Marine Corps' argument that readiness has been improved by retaining additional pilots at the 0-3 to 0-5 grade level. However, we believe that paying bonuses to officers at grade levels where surpluses already exist is a very inefficient way to solve a pilot shortage problem caused by inadequate recruiting and training rates. Furthermore, as our analysis showed that Marine Corps pilot year-to-year continuation rates have historically been quite high, particularly at the 0-4 to 0-5 grade levels, it is doubtful that the bonus prompted many additional Marine Corps pilots to remain. As the continuation rates for these pilots were already near or over 90 percent, there was little room for gain.

For these reasons, then, we have concluded that most of the $20.8 million committed by the Marine Corps in fiscal year 1981 for pilot bonuses has been, and is being, spent unnecessarily.

In contrast to the Marine Corps, the Navy has had a pilot shortage at grade levels 0-3 to 0-5. Accordingly, to more precisely pinpoint where the retention problems exist and where the payment of a bonus could be expected to influence retention behavior, we analyzed their current and historic year-to-year continuation rates. These continuation rates are shown in table 3.

Table 3

Navy Pilot Year-to-Year Continuation Rates

Years of Commissioned Service	Fiscal Years 1975	1976	1977	1978	1979	1980	1981
	-----------Percentage continuing-----------------						
5	87	88	82	88	90	88	98
6	89	88	77	73	70	79	81
7	92	86	78	72	71	78	80
8	94	91	86	76	79	86	96
9	87	96	91	85	86	90	99
10 a/	86	78	79	79	80	87	99
11	97	96	96	91	87	92	99
12	97	97	96	96	94	96	98
13	99	97	97	96	98	97	98
14	99	98	97	95	95	98	99
15	99	98	96	95	95	97	99
16	99	99	99	98	95	97	99
17	98	98	99	99	94	97	98

a/Lower continuation rates in the 10th year reflect a high turnover of 0-3s who were resigning or being released because they had not been promoted.

This analysis shows that, historically, the continuation rates for Navy pilots dropped off substantially to the low 70-percent range during the 6th year of service--the year the pilots' initial service obligation was completed--and remained quite low through the 8th year of service. In the 9th year, however, continuation rates began to increase dramatically to the point where they exceeded 95 percent from the 11th year forward. This means that a bonus paid during the 6th to 8th year period, and possibly in the 9th year, could reasonably be expected to influence retention behavior. In fact, the continuation rates experienced in fiscal year 1981 indicate that the bonus may indeed have improved retention in these year groups. However, the analysis also shows that beyond the 9th year, continuation rates are already very high, leaving little room for the bonus to improve retention. Simply put, if 95 out of 100 pilots remained in the Navy without a bonus, and 98 or 99 stay if a bonus is paid, the Navy paid bonuses to all 99 pilots just to gain an additional 4. When continuation rates are already in the 97 and 98 percentage range, as they were in the 14th and 15th years of service, the marginal pilot gain by paying a bonus is even smaller.

Our analysis of the Navy pilot shortage led us to conclude that (1) the potential for improving pilot retention is greatest at the 6th through 8th year of service and (2) beyond the 9th year there is very little room for bonus payments to influence retention behavior. In our opinion, therefore, much of the $27.9 million committed in fiscal year 1981 to pay Navy pilots in the 9th year of service and above has been, and is being, unnecessarily spent.

An even more refined analysis is needed to identify the specific pilot specialties--jet, propeller, and helicopter--which are critically short, which are having serious retention problems and whether the payment of bonuses is the most cost-effective solution to the problems identified. The time frame for our work did not allow us to make this analysis. However, we noted that in a recent interview published in the Navy Times, Secretary Lehman stated that retention of helicopter pilots is even higher than the retention of NFOs. Navy officials said that they could not provide us with the source of the data cited by Secretary Lehman. Also, we noted that the Navy consistently uses many aviators to fill nonaviator positions--the so-called general services positions--and that if these nonaviator positions were subtracted from the Navy's aviator requirement numbers, there would be no overall shortage of aviators. (See appendix VI.) It would seem that in looking for the most cost-effective ways to solve an essentially short-term shortage problem, management actions could be taken in this area to reduce the aviation community's requirement to fill their "fair share" of the general service positions.

NAVY EXAGGERATED ITS PILOT AND NFO GAINS

The Navy claims to have kept an additional 489 pilots and 110 NFOs as a direct result of the Aviation Officer Continuation Bonus Program. While we agree that some pilots and NFOs remained because of the bonus program, we believe that the numbers claimed are exaggerated. Basically, the Navy computed its gains by applying 1979 year-to-year continuation rates to 1981 inventory numbers. It also assumed that all gains were attributable to the bonus program.

We disagree with the way the Navy determined its 1981 gains, and we also disagree with attributing these gains solely to the bonus program. First, 1979 was the Navy's poorest retention year over the past 7 years. In our opinion, using 1979 as the base year rather than using average continuation rates distorts the "gain." Second, in 1979, commercial airlines hired just over 4,000 new pilots, but hired less than 1,000 new pilots in 1980. This airline hiring trend can be seen in appendix IV. Third, substantial improvements were made in compensation benefits between 1979 and 1981--a large pay raise in October 1980, a 25-percent increase in ACIP, and the authorization of a new variable housing allowance. And fourth, Air Force continuation rate patterns were nearly identical to the Navy's--poor continuation rates for the 6th to 8th years of service groups in 1978 and 1979, with improvements being made in 1980 and even greater improvements in 1981. The key difference is that the Air Force improvements occurred without the use of bonuses.

In order to get a more realistic picture of the Navy's 1981 pilot and NFO gains that might reasonably be credited to the bonus program, we applied average 1975 through 1980 continuation rates to the 1981 inventory numbers. This comparison shows that the Navy might reasonably claim to have kept an additional 204 pilots and 72 NFOs because of the bonus program, rather than their claim of 489 pilots and 110 NFOs. We think, however, our comparison probably also overstates the gain because, like the Navy, we did not quantify the affect of the steep drop in airline hirings, other pay adjustments which the military believes brought them up to a level of pay comparability with the private sector, or the generally poor economic condition during 1981.

AWARDING BONUSES ON "YEARS OF AVIATION SERVICE" RATHER THAN ON "YEARS OF ACTIVE DUTY SERVICE"

In performing our analysis, we noted that many pilots and NFOs were being paid large bonuses even though they appeared to be beyond the "window of eligibility" and also beyond the point where a bonus could influence their decision to remain in the service. We noted that people with long years of active duty service, who would almost certainly remain for a full 20-year career, were receiving large "retention" bonuses. For example, at the extreme, we noted that 2 individuals--both NFOs--one with 15 and the other with 16 years of active duty service were awarded bonuses of $24,633 and $38,990, respectively, as an "incentive" to remain in the service for another 4 or 5 years. In our opinion, a reasonable argument cannot be made that paying bonuses to these two individuals, and many others like them, greatly influenced their decision to remain in the service until retirement.

The Navy and Marine Corps records show that bonuses have been awarded to 412 senior pilots and NFOs who had 16 or more years of active duty service.

Navy officials said that the reason these situations occurred was that the authorizing legislation (Public Law 96-342) states that bonus payments depend on "years of aviation service." As a result, since many officers do not become aviators until after they have accumulated several years of active duty service, either as an enlisted member or as an officer, many of those receiving bonuses are only a few years away from retirement.

The Navy is correct that the wording of the current authorizing legislation permits situations like this to occur. However, the law does not preclude the Secretary of the Navy from exercising good management judgment in developing and approving the bonus implementation instructions. We believe that good management would dictate that the payment of retention bonuses to officers nearing retirement is an unnecessary expenditure of funds.

I should emphasize that if the aviation bonus program were managed as the Congress initially intended--that is, that it be used as a retention tool, selectively applied where shortages exist, and targeted to critical retention points--the dollar impact of paying bonuses to aviators near to retirement would be substantially less. However, to preclude unnecessary payments

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in the future, we are recommending that, if the bonus program is reauthorized, the language which defines the "window of eligibility" be amended.

The Navy agreed that bonus payments to people with many years of service does not look good, and they agreed that the law probably should be changed. However, they said that in their opinion the "window of eligibility" should be governed by "years of commissioned service" rather than "years of active duty service," so as to not "penalize" officers who had served as enlisted members for several years.

We disagree with the Navy on this point. The Navy's position fails to recognize the bonus for what it is--a retention incentive. Rather, it views the bonus as part of an aviator's career pay entitlement, which it is not. All years of active duty service, regardless of whether they are served in enlisted ranks or as an officer, count towards retirement eligibility. Data from all the services show that once an aviator--either pilot or NFO--has passed the 10th year of service, the military's generous retirement system is a very strong pull to at least a full 20 years of service. Therefore, in our opinion, if both the retirement system and bonuses essentially serve the same purpose--that is, they each serve as a retention tool--it does not seem reasonable to disregard the affect of one management tool when determining whether to apply an additional tool.

SUMMARY

In summary, Mr. Chairman, we believe that the Navy and Marine Corps are not judiciously managing the aviation continuation bonus program. They are paying bonuses to all aviators with 6 but not more than 16 years of aviation service, regardless of whether (1) these aviators are in aviation specialties which have critical shortages or (2) there is a reasonable opportunity for the bonus to influence retention behavior. We believe that as a result of the Navy and Marine Corps' "across-the-board" approach to managing this program, as much as $81.6 million of the $102.9 million committed during fiscal year 1981 alone has been, and is being, unnecessarily spent. If the Navy and Marine Corps are allowed to continue paying bonuses to aviators in specialties where there are virtually no shortages and/or at career points where there is very little opportunity to influence or improve retention, many more millions of dollars will be unnecessarily spent.

We think that the aviation bonus authority should be extended beyond September 30, 1982, when it will now expire, because the Navy has serious pilot shortages. However, we firmly believe that any extension of the authority should be contingent on the Navy and Marine Corps developing new implementing instructions which would (1) pay bonuses only on verification of need, (2) be targeted to the specific aviation specialties where critical shortages of aviators exist, and (3) selectively applied at the critical retention points, early enough in the aviator's career so that the payment of a bonus could reasonably be expected to influence retention behavior. Verifying need, targeting to specific aviation specialties, and applying the bonus to critical retention points would require the Navy and Marine Corps to specifically analyze each of the several aviation specialties in order to determine whether the critical shortages exist, and, if so, at which career points retention has been and is a problem. The services should also determine whether the same bonus amounts are needed for each shortage and retention problem identified or whether separate payment schedules would be more cost effective.

We recognize that the reauthorization of the aviation bonus program is not the responsibility of this committee. Nevertheless, there are options open to this committee to encourage the Navy and the Marine Corps to more judiciously manage this program and to require more thorough management oversight by the Office of the Secretary of Defense. These options include placing restrictive language in appropriation bills which would prohibit the use of funds for the payment of bonuses beyond the 8th or 9th year of active duty service and to aviators in specific pilot and NFO specialties where shortage and retention problems have not been demonstrated. This committee could also require that the Assistant Secretary of Defense for Manpower, Reserve Affairs, and Logistics, annually certify that (1) the shortages claimed by the services in each pay grade are critical to the services' ability to carry out their mission and (2) no other more cost-effective solution to the problem can be found.

Mr. Chairman, this concludes my formal statement. My colleagues and I would be happy to respond to any questions you may have.

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APPENDIX I

Aviation Bonus Activity Summary Fiscal Year 1981

	Navy	Marine Corps
Number of bonus recipients	4,590	1,274
Average bonus amount	$16,972	$19,623
Average years committed	3.0	3.3
Fiscal Year 1981 Program Cost:	Millions	Millions
Appropriated and spent in 1981	$26.4	$ 7.6
Anniversary payments of 1981 commitments	51.5	17.4
Total cost of 1981 commitments	$77.9	$25.0

Distribution of Recipients By Years of Aviation Service

Navy

Years Committed	Years of Aviation Service 6-8	9-12	13	14	15	Total
1	292	234	40	37	398	1,001
2	59	84	15	360	-	518
3	19	88	337	-	-	444
4	1,202	1,425	-	-	-	2,627
Total	1,572	1,831	392	397	398	4,590

Marine Corps

Years Committed	Years of Aviation Service 6-8	9-12	13	14	15	Total
1	26	22	4	10	85	147
2	13	18	6	119	-	156
3	4	10	130	-	-	144
4	410	417	-	-	-	827
Total	453	467	140	129	85	1,274

APPENDIX II

NFO Shortages

	1977	1978	1979	1980	1981	1982	1983
Navy							
Required	3,372	3,482	3,416	3,445	3,488	3,588	3,743
Inventory	2,906	3,067	3,165	3,300	3,470	3,517	3,714
Shortage	466	415	251	145	18	71	29
Marine Corps							
Required	744	807	863	716	823	795	706
Inventory	669	655	690	699	700	673	649
Shortage	75	152	173	17	123	122	57

Note: Navy shortages are based on requirements for grades 0-3 through 0-5, whereas Marine Corps shortages are based on requirements for all grades 0-1 through 0-5 who have completed flight training. Inventory figures for 1982 and 1983 are based on the services' projections with a bonus.

Navy NFO Year-to-Year Continuation Rates

Years of Commissioned Service	Fiscal Years						
	1975	1976	1977	1978	1979	1980	1981
	Percentage continuing						
5	85	84	88	88	87	89	90
6	91	87	85	88	88	91	94
7	90	87	89	87	87	89	88
8	95	93	90	92	92	91	91
9	82	95	95	96	96	96	97
10 a/	83	79	76	86	89	92	99
11	92	96	95	89	88	89	96
12	99	96	96	96	92	93	96
13	97	98	98	94	97	96	94
14	98	96	96	97	98	97	99
15	98	98	97	97	98	99	98
16	99	99	96	99	99	96	99
17	96	97	97	96	96	96	98

a/Lower continuation rates in the 10th year reflect a high turnover of 0-3s who were resigning or being released because they had not been promoted.

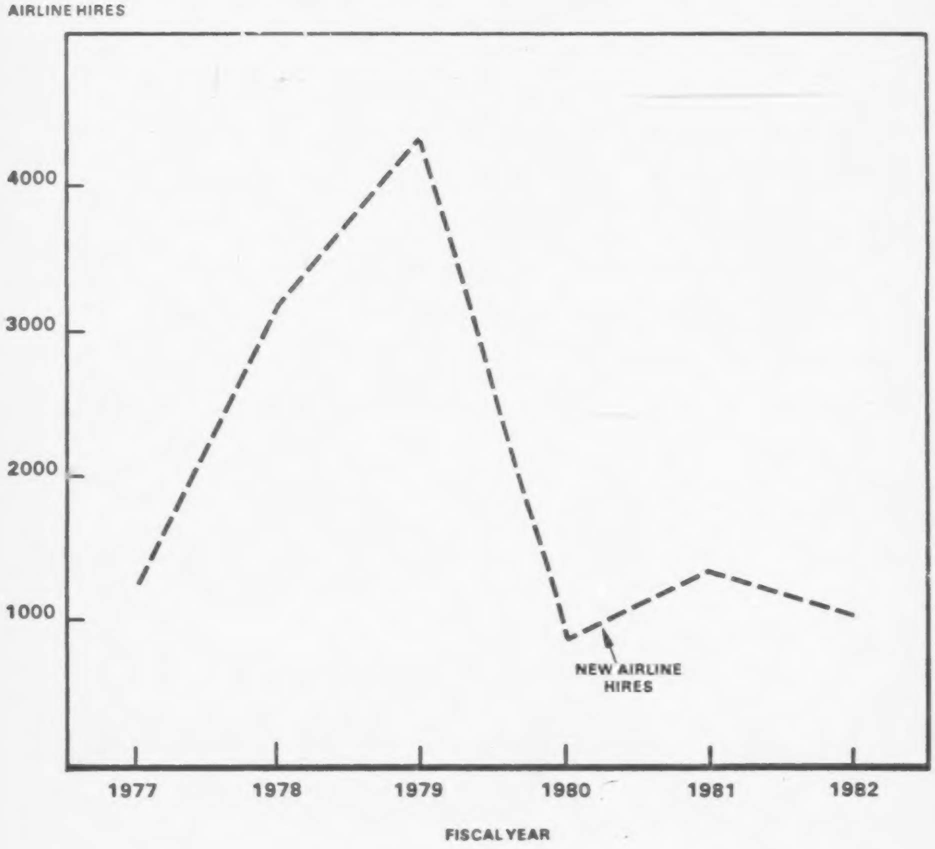
APPENDIX III

Pilot Shortages

	1977	1978	1979	1980	1981	1982	1983
Navy							
Required	9,216	8,953	9,005	9,174	9,344	8,176	8,632
Inventory	8,268	7,604	6,993	6,815	7,012	7,021	7,048
Shortage	948	1,349	2,012	2,359	2,332	1,155	1,584
Marine Corps							
Required	4,019	3,844	3,744	3,796	3,867	3,852	3,884
Inventory	3,644	3,429	3,219	3,286	3,543	3,658	3,760
Shortage	375	415	525	510	324	194	124

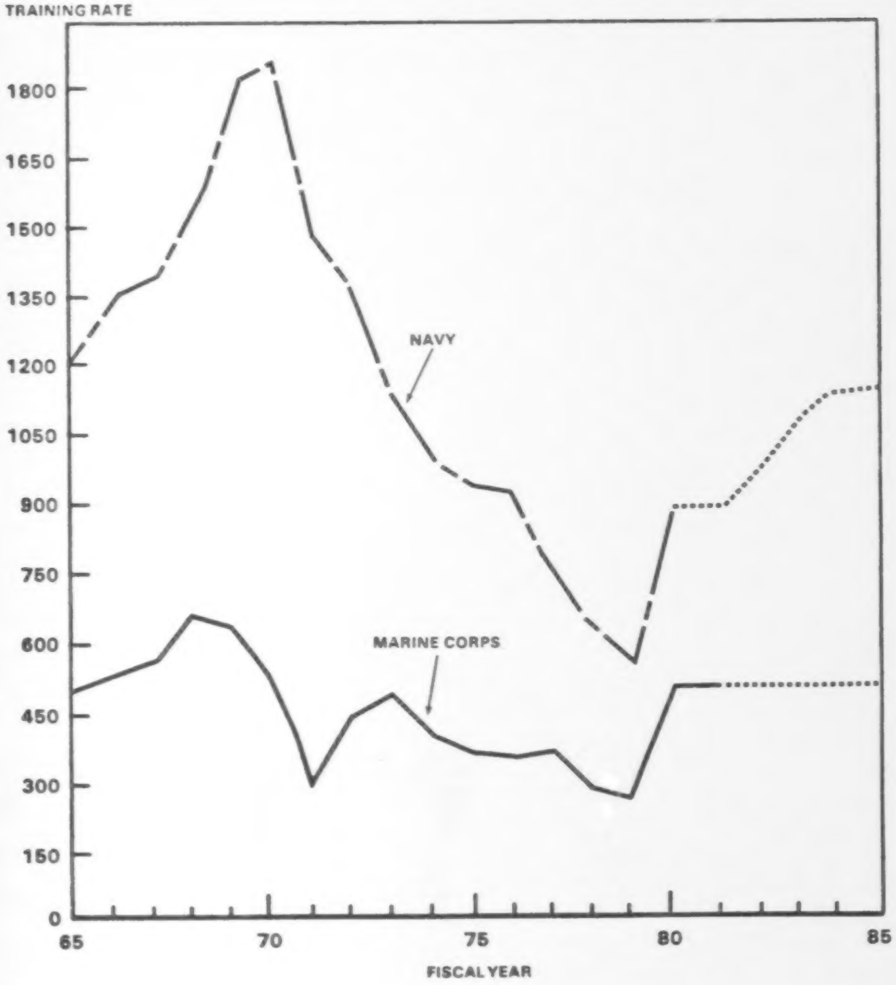
APPENDIX IV

AIRLINE PILOT HIRING



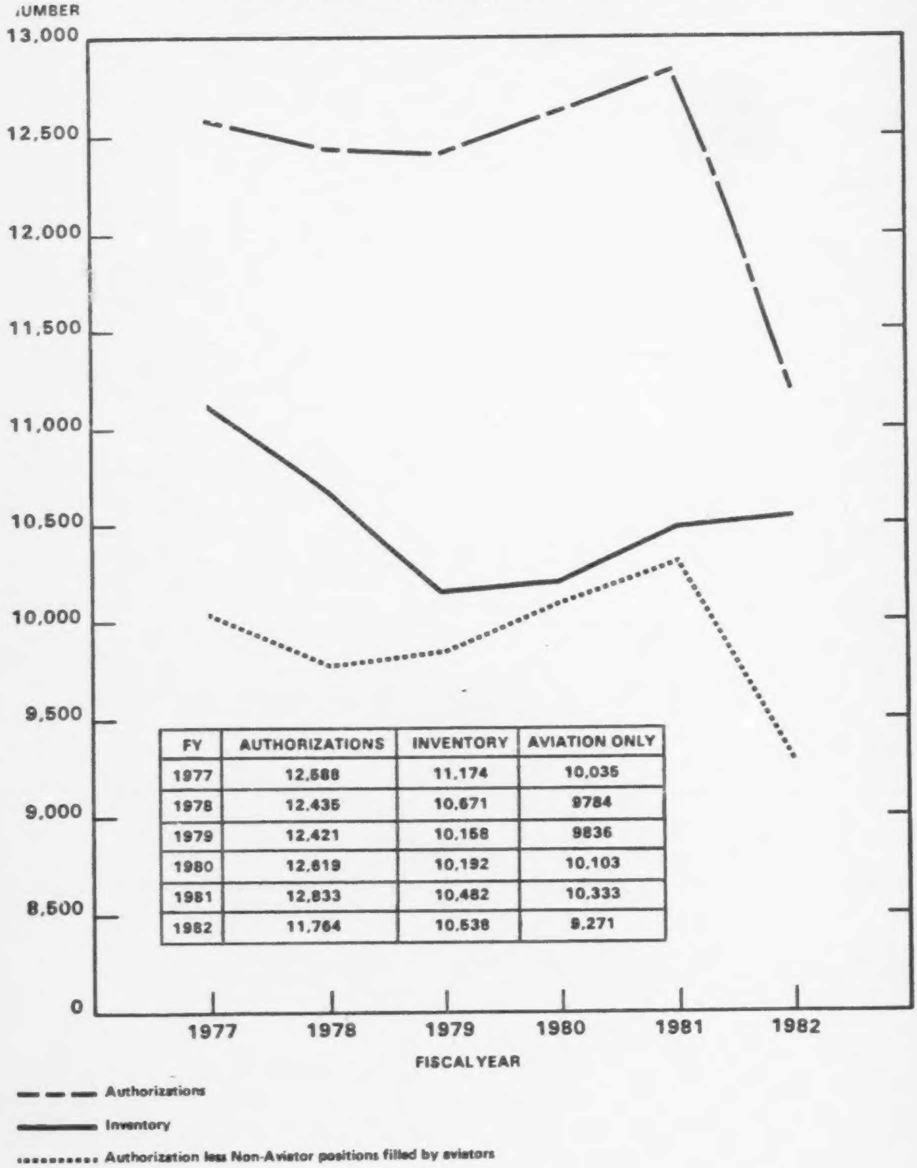
APPENDIX V

NAVAL AIR TRAINING COMMAND PILOT PRODUCTION



APPENDIX VI

PILOT AND NFO INVENTORY VS. AUTHORIZATION SHOWING IMPACT OF NON-AVIATOR POSITIONS ON OVERALL SHORTAGE PROBLEM



FY	AUTHORIZATIONS	INVENTORY	AVIATION ONLY
1977	12,588	11,174	10,035
1978	12,435	10,671	9784
1979	12,421	10,158	9836
1980	12,619	10,192	10,103
1981	12,833	10,482	10,333
1982	11,764	10,538	9,271

EFFECT OF COMMERCIAL AIRLINE PROBLEMS ON PILOT RETENTION

Senator STEVENS. Did your study in any way look at the economic conditions which might or might not offer an incentive to pilots to go into the civilian community? With the current recession, Braniff failing, all the other conditions that are there, I think the incentive to stay in the military is a lot different than it would be if we were at the height of a boom. Did you cover that at all?

Mr. COFFEY. Yes, sir, we did, in the context of looking at airline hiring rates which have had a direct impact on pilot manning problems in the Armed Forces.

The current problem to a large extent was caused by the boom in airline hiring of several years ago. Now that the airline industry is on much harder times, the numbers of pilots being hired is down dramatically. As a result, we noted that there has been a marked turnaround in the Air Force, which is not paying these bonuses. We believe this turnabout in their retention is due to a very large extent to the turn-about in the airline hiring situation.

RETENTION COMPARISONS IN ARMED FORCES

Senator STEVENS. Did you compare the Air Force change in retention with the Navy and Marines?

Mr. COFFEY. Yes, sir, we did, and found that they are similar, that there are improvements in all three services, that the Air Force improvements are no better or worse than the improvements in the Navy and Marine Corps.

Senator STEVENS. You can reach the conclusion that paying the bonus had nothing to do with the retention rate in the Navy and the Marine Corps?

Mr. COFFEY. It has very marginal impact. We believe it has had very positive impact on younger aviators with a 6- to 8-year span of service. Beyond that, we agree.

SHORTFALL TARGETING

Senator STEVENS. That gets into the question of selectively targeting shortfalls. You indicate that there was no compliance with the congressional mandate that the money be targeted to the area of predicted shortfalls, is that right?

Mr. COFFEY. That is correct, sir.

Senator STEVENS. Is there any indication that either the Navy or the Marines has overstated the results of the use of these bonus moneys?

Mr. COFFEY. We believe they have somewhat exaggerated the impact of the bonus. In the statement at some length we explain our justification for this.

Our view is that the bonus has produced some impact but somewhat less than half of what they claim it has produced.

Senator STEVENS. Did you find any indications that the Navy pays flight pay and hazardous duty pay simultaneously?

Mr. COFFEY. I don't know, Senator. Perhaps my colleagues have some information.

Mr. JOHNSON. They pay flight pay, the ACIP and bonuses. ACIP is not considered hazardous duty pay; it is considered a continuation career pay.

Incidentally, they are also, under certain conditions eligible for sea pay, career sea pay, in addition to the aviation pay.

ACROSS-THE-BOARD PAYMENT OF BONUS MONEY

Senator STEVENS. I don't quite understand. Did I understand you to say that you found evidence that there was an across-the-board use of this bonus money without regard to the necessity for determining the need for paying a bonus to assure retention?

Mr. COFFEY. We believe there has been. We believe that in the extreme cases the bonus is being paid to aviators of such rank and years of service where its impact is slim if nonexistent. As the aviators increase in experience, age, and rank, there is a corresponding increase in their current and historic willingness to stay in the service. As a consequence, for aviators beyond the 10th year of service, there is very little opportunity for bonuses to influence behavior. It is not to say that it doesn't in some extreme cases. It does say that we are paying bonuses to a great number of people who would not consider leaving the service in order to gain one or two additional aviators.

Senator STEVENS. Who didn't get the bonus in the Navy and the Marine Corps?

Mr. COFFEY. It would be only to those who elected to leave the service, who would be very few in number in the ranks and years of service beyond 10 years of service.

Senator STEVENS. Thank you very much.

I think what we are seeing is the senior executive service circumstance, where a good program has been abused in the first year to the point where it is on its way to a very slow and agonizing end.

Mr. COFFEY. Yes, sir, we agree totally.

Senator STEVENS. You did that one, too, did you not, at least the GAO did, in examining the senior executive bonus program, which led to the Congress reacting twice to that program?

Mr. COFFEY. It is unfortunate, Senator, that you have to consider management concerns, but this program, as in the senior executive service, is a problem of management rather than objective in purpose. If managed better, the program could serve useful ends. It is unfortunate that it isn't.

Senator STEVENS. Thank you. We will be conferring with you later about the possibility of putting restrictions on the use of the money for succeeding years.

We appreciate your attendance very much.

DEPARTMENT OF DEFENSE

Assistant Secretary of Defense

(Manpower, Reserve Affairs and Logistics)

STATEMENT OF HON. LAWRENCE J. KORB, ASSISTANT SECRETARY OF DEFENSE (MANPOWER, RESERVE AFFAIRS AND LOGISTICS)

ACCOMPANIED BY:

- **LT. GEN. MAX R. THURMAN, USA, DEPUTY CHIEF OF STAFF FOR PERSONNEL, OFFICE OF THE ARMY CHIEF OF STAFF**
- **VICE ADM. LANDO W. ZECH, JR., USN, DEPUTY CHIEF OF NAVAL OPERATIONS (MANPOWER, PERSONNEL AND TRAINING), CHIEF OF NAVAL PERSONNEL**
- **LT. GEN. E. J. BRONARS, USMC, DEPUTY CHIEF OF STAFF FOR MANPOWER, HEADQUARTERS, U.S. MARINE CORPS**
- **LT. GEN. ANDREW P. IOSUE, USAF, DEPUTY CHIEF OF STAFF, MANPOWER AND PERSONNEL, HEADQUARTERS, U.S. AIR FORCE**

INTRODUCTION OF WITNESSES

Senator STEVENS. Dr. Korb, did you want the uniformed personnel with you at the table?

Dr. KORB. My purpose would be not to have them unless you have specific questions.

Senator STEVENS. Fine. Mr. Korb, we will place your complete statement in the record and you may summarize your comments.

Dr. KORB. I am pleased to appear today, Mr. Chairman. Accompanying me are Capt. William J. Gost, USN, Principal Director, Office of the Deputy Assistant Secretary (Military Personnel and Force Management), Office of the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics); Mr. David Dellefield, Deputy Director, Military Personnel, Office of the Deputy Assistant Secretary of Defense (Program/Budget), Office of the Assistant Secretary of Defense (Comptroller); Lt. Gen. Max R. Thurman, USA, Deputy Chief of Staff for Personnel, Office of the Army Chief of Staff; Vice Adm. Lando W. Zech, Jr., USN, Deputy Chief of Naval Operations (Manpower, Personnel and Training), Chief of Naval Personnel; Lt. Gen. E. J. Bronars, USMC, Deputy Chief of Staff for Manpower, Headquarters, U.S. Marine Corps; and Lt. Gen. Andrew P. Iosue, USAF, Deputy Chief of Staff, Manpower and Personnel, Headquarters, U.S. Air Force.

SUCCESSES IN ARMED SERVICES DURING 1981

The President has said:

> Working with the Congress, we have begun to reverse the negative trend of the last few years in the standard of living of our military personnel. We have done this through more competitive pay, increased enlistment and reenlistment bonuses and enhanced educational benefits.

> Just as important, he said, we have fostered an attitude of increased appreciation and respect for the men and women who wear their country's uniform. There is a new spirit of pride and patriotism alive in the land, and the impressive manpower record of the Armed Forces during fiscal year 1981 reflects this.

I should note that our recruiting efforts have continued to be successful in fiscal year 1982. The four services combined reached 103 percent of quota in the first half of the year. We are most encouraged with these results. At the same time, however, we know our recruiting efforts must be intensified if we are to achieve our goals in building a stronger active force this year and into the mid-1980's in the face of a declining 18-year-old population.

Our country's military manpower goals remain ambitious—2,110,000 in the Active Forces by the end of fiscal year 1982 and 2,148,000 a year later. For Reserve and National Guard units the targets are 946,000—up 47,000—in fiscal year 1982 and 1 million—up another 54,000—in fiscal year 1983.

This is no time to relax in the afterglow of 1981's achievements. If we are to continue to attract and retain the manpower we need to sustain force readiness and meet our national commitments, it is essential that a service enlistment be perceived as an honorable, rewarding career choice.

With the increases in military pay and benefits in the last 2 years, I believe we have finally succeeded in correcting military compensation inadequacies and have restored pay to a level which will enable us to recruit and retain a quality military force. Therefore, it is not necessary to recommend extensive additional increases at this time.

FUNDING FOR AREAS OF IMPROVEMENT

However, the President's budget reflects our concern that continued improvements should be made in PCS cash reimbursement and health-care services. It requests funding to enable us to raise the mileage allowance for military members from 13 to 16 cents per mile, for spouses and and dependent children over 12 years of age from 7 to 10 cents per mile, and for dependent children between ages 2 and 12 from 3.5 to 7 cents per mile. In the health care area a limited dental program for dependents is being considered.

BONUS PAYMENTS

It is also essential that our bonus authorities be extended into fiscal year 1983, but let me assure you that if we get this authority, we will continue to refine and judiciously apply these bonuses only to skilled areas of our greatest manpower needs.

For example, in the past 4 months there has been a net reduction in, or termination of, the bonus multipliers. In addition, we will be able to complete the congressionally mandated test designed to measure the effectiveness of the new bonus authority enacted by Congress last year.

Extensive analyses show that lump-sum reenlistment bonus payments yield a greater number of reenlistments and longer average obligated service lengths than the same nominal amount paid in some deferred fashion. Based on these analyses, the Department believes that a return to a lum-sum payment method at the earliest possible time is the most appropriate action to take.

We have also requested authority and funds for an IRR reenlistment bonus to increase the size of the IRR.

The fiscal year 1983 defense budget assumes an 8 percent military pay raise in October. This was an estimate of the amount needed to match increases in private-sector pay. It may be necessary that we ask our service men and women to sacrifice along with the rest of the country as we attempt to reduce the huge budget deficit.

I must state, however, that this administration is committed to maintaining competitive military pay over the long term. If we do not, the improved readiness posture of the Armed Forces gained over the last 2 years may be lost as the state of the economy improves.

IMPORTANT ISSUES

I would also like to take this opportunity to briefly mention several additional issues before the Congress which are very important to me.

One. I believe that it is essential for wartime preparedness that we proceed with the consolidation of the Military Traffic Management Command and the Military Sealife Command. The Senate Armed Services Committee provision which prohibits the consolidation will curtail our efforts to improve wartime readiness and to achieve economies and efficiencies in transportation management.

Two. Our effort to transfer inventory management responsibility of 200,000 consumable items from the services to the Defense Logistics Agency will reduce operating expenses while maintaining a high level of readiness. It is important that the Senate Armed Services Committee overturn the House action in conference.

Three. The Senate authorization bill makes ill-advised reductions in bonus money and manpower. Bonuses are essential to maintaining a quality force. End strength reductions, particularly reductions in support personnel, affect the readiness of our fighting forces.

Four. I am very concerned about the lack of support for our forward-deployed forces.

Five. Elimination of funds for POMCUS sets 5 and 6 will interfere with our ability to field a 10-division D-Day U.S. force in Europe.

Six. Reductions in military construction in Europe adversely affect the morale and welfare of our troops stationed there and interfere with their ability to perform their mission.

Seven. There is even some talk of disapproval of funds for the host-nation support agreement recently signed by the United States and Germany. This agreement provides us 93,000 German reservists upon mobilization to support U.S. Army and Air Force forces at a cost evenly divided between Germany and the United States. It is a cost-effective solution to a pressing U.S. problem.

Eight. There are numerous actions in Congress which will interfere with our ability to contract out work which can more economically and efficiently be performed by private enterprise. Restrictions upon our ability to perform work when it can be most economicaly and efficiently done will adversely affect our readiness and mobilization posture.

Nine. I am also concerned that the Congress has not given us relief on the flag- and general-officer ceiling. We have submitted comprehensive legislation to the Congress on flag- and general-officer management. We ask that the Congress allow us to man our general-officer requirements at the fiscal year 1981 level until October 1, 1983, while Congress acts on our comprehensive legislative proposals.

Ten. We have requested that the Congress authorize a uniform ration for the Armed Forces and hope that it will be enacted by this Congress.

Eleven. I request the support of the Congress in guaranteeing a quality education to our dependents through our overseas schools, section 6 schools and impact aid payments to localities. No service member should have to worry about quality education for his children. We support the Senate action to stop the transfer of the DOD overseas schools to the Department of Education and to fund adequately the section 6 schools in the United States.

Twelve. Finally, I would like to state that the Department of Defense does not request or have need for enactment of a new GI bill at this time. The Department, along with the President's Military Manpower Task Force, has concluded that while some type of noncontributory educational program might be beneficial, its cost—which might reach $2 billion annually—could not be justified in the face of recruiting success, the possible adverse effect on retention, resource constraints and the availability of other more cost-effective recruiting incentives.

Thank you, Mr. Chairman.

Senator STEVENS. Thank you, Doctor.

[The prepared statement of Dr. Korb follows:]

PREPARED STATEMENT OF DR. LAWRENCE J. KORB

ASSISTANT SECRETARY OF DEFENSE

MANPOWER, RESERVE AFFAIRS, AND LOGISTICS

I. INTRODUCTION

Mr. Chairman and members of the Committee, it is a pleasure to appear before you today to present an overview of the Reagan Administration's defense manpower program for FY 1983 and to discuss with you the manpower issues which we feel are of paramount importance.

The determination of defense manpower requirements begins with an assessment of our worldwide commitments and the global threat that forces us to strengthen our armed services. From this analysis of our commitments and the threat come our conclusions about the types and numbers of forces the U.S. needs and specific manpower requirements necessary to fill and sustain those forces.

The process is further influenced by judgments about the complex interrelationships between peacetime requirements and wartime demands. Our annual Defense Manpower Requirements report summarizes the procedures used by the Services and the Defense Agencies to determine their manpower requirements and describes the relationship between those requirements and the nation's security. This statement will focus on our programs to manage the manpower resources we feel are absolutely necessary.

It is obvious that no military force--no matter how sophisticated its equipment--will be any better than its people. Accordingly, President Reagan's program to rebuild our military strength gives top priority to meeting our requirements for an adequate supply of manpower and to the needs of the men and women, military and civilian, who comprise that manpower. This administration is committed to maintain and enhance the recent progress realized in a number of defense manpower areas.

Overall, defense manpower is composed of active duty military, the Reserve Components and civilians. Together these three components constitute our total force. Defense manpower management is concerned with the effective and efficient integration and support of those three. This statement, therefore, will address each of the three in turn and then cite the specific assistance being sought from the Congress to enable us to manage more effectively this most important of national security assets.

II. ACTIVE DUTY MANPOWER

Defense Manpower Trends

As shown in Table 1, FY 1981 active military strength was about 605,000 below the strength levels of 1964, the pre-Vietnam reference year often used in analyses of strength trends. In FY 1982 and FY 1983 the active duty strengths are programmed to increase 28,000 and 66,000 above the FY 1981 levels respectively.

Table 1
DEFENSE MANPOWER TRENDS: SELECTED YEARS
(End of FY Strengths in Thousands)

	Actual					Program	Planned
	FY 64	FY 68	FY 78	FY 80	FY 81	FY 82	FY 82
Active Military	2,687	3,547	2,061	2,050	2,082	2,110	2,148
Selected Reserve	953	925	788	851	899	946	1,000
Individual Ready Reserve/*	845	1,571	356	413	419	411	435
Civilians	1,176	1,393	1,017	990	1,019	1,034	1,035

*Includes Inactive National Guard

Table 1 also shows that Selected Reserve strength bottomed out during 1978 at 788,000 and is now increasing with a goal of 946,000 in FY 1982 and a longer term goal of over 1,000,000 by the mid-1980s.

The Individual Ready Reserve (IRR) strength for FY 1981 was 419,000. The IRR is a product of the flow-through of the active forces. IRR strength decreased substantially after the Vietnam conflict, bottomed out in 1978 at 342,000 and is now increasing.

Table 2 shows that DoD has manned the Active Force within a reasonable range of the Congressional strength authorizations since the authorizations were established in 1972.

Table 2
ACTIVE FORCE END-YEAR STRENGTH
(Thousands)

	FY72	FY73	FY74	FY75	FY76	FY77	FY78	FY79	FY80	FY81
Authorization	2,553	2,329	2,190	2,149	2,091	2,093	2,085	2,056	2,052	2,080
Achievement	2,512	2,252	2,161	2,127	2,081	2,074	2,061	2,024	2,050	2,082
Percentage of Authorization	98	97	99	99	99	99	99	98	99+	100

Table 3 shows active military end-year strengths by Service for selected years. Since the Vietnam drawdown in the early 1970s, each Service has maintained relatively constant strength levels.

Table 3
ACTIVE MILITARY END-YEAR STRENGTHS BY SERVICE: SELECTED YEARS
(Thousands)

	Actual						Program	Planned
	FY64	FY72	FY74	FY78	FY80	FY81	FY82	FY83
Army	973	955	783	771	777	781	784	784
Navy	668	604	546	530	527	540	553	569
Marine Corps	190	202	189	191	188	191	192	195
Air Force	857	750	644	570	558	570	581	600
DoD Total	2,687	2,512	2,161	2,061	2,050	2,082	2,110	2,148

Table 4 describes the recent changes in the female and black content of the Services. The female content increased to nine percent of active duty forces in FY 1981 while the percentage of blacks after doubling between FY 1964 and FY 1978 has remained relatively constant over the past few years.

Table 4
ACTIVE FORCE END STRENGTH AND CONTENT*
(Thousands)

	FY 64	FY 72	FY 74	FY 78	FY 80	FY 81
Total	2,676	2,311	2,151	2,049	2,036	2,069
Percent Female	1	2	4	7	8	9
Percent Black	9	12	14	17	20	19

*Reported Strength (Includes reimbursables and excludes cadets/midshipmen)

Recruiting

In terms of both quantity and quality, FY 1981 was an outstanding recruiting year. Table 5 indicates that the Defense Department as a whole achieved 367,300 enlistments and all four Services met or exceeded their recruiting objectives. This was true for all three categories of personnel for which objectives were established: Non-Prior Service (NPS) males, NPS females, and prior service enlistees.

Many factors contributed to the favorable FY 1981 recruiting results--recruiting management improvements and new initiatives, increased levels of recruiting resources, the state of the economy, more competitive compensation thanks to strong Congressional interest and support, and a sharp increase in public appreciation for our men and women in uniform.

Table 5

FY 1981 RECRUITING RESULTS

	ARMY		NAVY		MARINE CORPS		AIR FORCE		DOD TOTAL	
	NUMBER (000)	PERCENT OF OBJECTIVE	NUMBER (000)	PERCENT OF OBJECTIVE	NUMBER (000)	PERCENT OF OBJECTIVE	NUMBER (000)	PERCENT OF OBJECTIVE	NUMBER (000)	PERCENT OF OBJECTIVE
Male NPS	99.6	101	81.9	100	38.6	101	66.0	100	286.1	101
Female NPS	18.3	100	10.1	100	2.3	100	11.0	100	41.7	100
Total NPS	117.9	101	92.0	100	40.9	101	76.9	100	327.8	101
PS Accessions	20.0	100	12.3	120	3.1	140	4.1	100	39.5	108
Total Accessions	137.9	101	104.3	102	44.0	103	81.0	100	367.3	101

Table 6 shows the mix of male, female, and black non-prior service (NPS) accessions for FY 1981 and the first six months of FY 1982.

Table 6
NON-PRIOR SERVICE ACCESSIONS--MALE, FEMALE, BLACK

	FY 1981				FY 1982 through March			
Service	Total	% Male	% Female	% Black	Total	% Male	% Female	% Black
Army	117.9	84	16	27	58.3	84	16	24
Navy	92.0	89	11	13	33.8	86	14	13
Marine Corps	40.9	94	6	18	16.2	93	7	15
Air Force	76.9	86	14	14	34.1	86	14	16
DoD Total	327.8	87	13	19	142.4	86	14	18

Through the first half of FY 1982, recruiting results remain encouraging and are slightly better than a year ago. The Services achieved 103 percent of their combined objectives for the quarter ending in March 1981. Table 7 shows all four Services achieved or exceeded their combined recruiting goals for this period.

Table 7
FIRST HALF FY 1982 & FY 1981 ENLISTED ACCESSIONS--ALL SOURCES
(Thousands)

	FY 1982 Thru March			FY 1981 Thru March		
Service	Objective	Actual	Percent of Objective	Objective	Actual	Percent of Objective
Army	62.7	66.5	106	62.3	62.0	99+
Navy	40.0	40.6	102	45.8	47.0	103
Marine Corps	17.5	18.2	104	17.6	18.2	103
Air Force	38.1	38.1	100	38.3	38.4	100
DoD Total	158.3	163.4	103	163.9	165.6	101

As shown in Table 8, the DoD accession requirement for FY 1983 is 381,800 which is 14,500 more than the Services recruited in FY 1981 and about 39,000 more than they have programmed for FY 1982.

Table 8
DoD ENLISTED ACCESSIONS
(Thousands)

Fiscal Year	Total	Non-Prior Service	Prior Service
1981 Actual	367.3	327.8	39.5
1982 Program	343.1	313.1	30.0
1983 Plan	381.8	343.1	38.7

Military quality is defined most frequently in terms of educational attainment and aptitude test scores. Possession of a high school diploma is an important indicator of the capacity of individuals to adjust to military life. On the average a nongraduate is twice as likely to leave the military before completing a three year enlistment than is a high school diploma graduate. Thus, given the choice in the recruiting market, we prefer to recruit diploma graduates. However, given a difficult recruiting market, it would be a mistake to turn away nongraduates arbitrarily since many of them do adapt successfully to service life.

As shown in the following tables, the number of male high school diploma graduates recruited by all the Services for FY 1981 was 25,000 above the number recruited the year before--a 12 percent increase. The Army recruited over 11,000 more male high school graduates and dramatically increased its proportion of male graduate NPS recruits from 49 percent in FY 1980 to 78 percent for FY 1981. In addition, the Services increased the percentage of female non-prior service enlistees with high school diplomas from 86 percent in FY 1980 to 92 percent in FY 1981.

Table 9
NON-PRIOR SERVICE ACCESSIONS--MALES AND FEMALES HIGH SCHOOL DIPLOMA GRADUATES

Total Number (Thousands)

	FY 1981			FY 1980		
Service	Male	Female	Total	Male	Female	Total
Army	77.5	17.2	94.7	66.5	19.3	85.8
Navy	60.4	9.4	69.7	56.3	9.5	65.8
Marine Corps	30.4	2.3	32.8	30.2	2.3	32.5
Air Force	57.8	9.6	67.4	47.9	11.4	59.3
DoD Total	226.1	38.5	264.6	201.0	42.5	243.5

Percentage of NPS Accessions

	FY 1981			FY 1980		
Service	Male	Female	Total	Male	Female	Total
Army	78	94	80	49	87	54
Navy	74	93	76	73	87	75
Marine Corps	79	100	80	77	100	78
Air Force	88	88	88	83	82	83
DoD Total	79	92	81	65	86	68

The overall educational level of our FY 1981 non-prior service accessions was somewhat higher than the national average. The Services recruited proportionately fewer non-graduates than are found in the general youth population (18-23 years of age). For example, approximately 81 percent of all new recruits possessed a high school diploma, compared with only 74 percent of all people in their age group.

Comparisons with previous years show that in FY 1981 DoD brought in a higher percentage of high school diploma graduates than ever before--even during conscription. The Army improvement in proportional numbers of high school graduates for FY 1981 over previous years was more significant than it was for DoD as a whole. Figures 1 and 2 demonstrate the dramatic upturn in the percentage of high school graduates coming into the force.

FIGURE 1

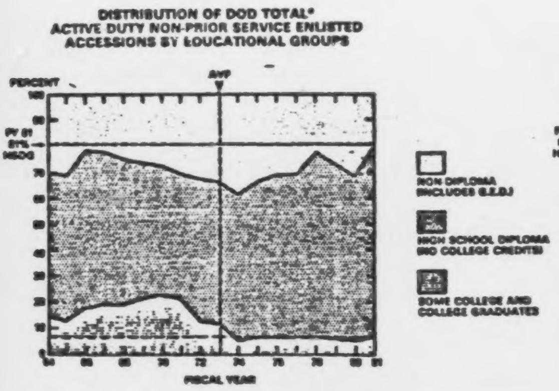
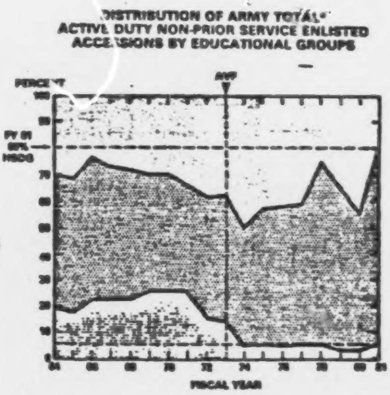


FIGURE 2



*INCLUDES NPS MALES AND FEMALES (INDUCTEES, REGULARS, AND RESERVES WITH 2 OR MORE YEARS ACTIVE COMMITMENT)

Recruiting of high school diploma graduates continues to be successful in FY 1982. Table 10 shows that the Army, during the first half of FY 1982, took in about 5,900 more male HSDG than for the same period last year.

Table 10
FIRST HALF FY 1982 & FY 1981 NON-PRIOR SERVICE ACCESSIONS
HIGH SCHOOL DIPLOMA GRADUATES

Total Number (Thousands)

	FY 1982 Thru March			FY 1981 Thru March		
Service	Male	Female	Total	Male	Female	Total
Army	35.1	9.3	44.4	29.2	7.8	37.0
Navy	20.6	4.4	25.0	26.3	4.1	30.4
Marine Corps	11.2	1.1	12.3	11.1	0.8	12.0
Air Force	26.8	4.4	31.1	25.1	5.2	30.3
DoD Total	93.7	19.2	112.9	91.7	18.0	109.6

Percentage of NPS Accessions

	FY 1982 Thru March			FY 1981 Thru March		
Service	Male	Female	Total	Male	Female	Total
Army	72	100	76	68	89	72
Navy	71	92	74	71	93	74
Marine Corps	74	100	76	70	100	72
Air Force	91	92	91	84	85	84
DoD Total	77	96	79	73	89	75

The "quality" of enlisted accessions is also evaluated on the basis of Armed Forces Qualification Test (AFQT) scores. These scores, along with aptitude composite scores derived from the Armed Services Vocational Aptitude Battery (ASVAB) are used in conjunction with educational, medical, and moral standards to determine applicant enlistment eligibility, enlistment guarantees, and assignment to occupations.

For reporting purposes AFQT scores have traditionally been grouped into five broad categories. Persons who score in Categories I and II are considered to be above average in trainability; those in Category III, average; those in Category IV, below average; and those in Category V, markedly below average and, under current Service policy, not eligible to enlist. We prefer enlistees in the higher AFQT categories because training time and associated costs are lower, and these recruits are more likely to qualify for specialized training in a greater number of occupational areas.

The number of non-prior service enlistees who scored average or above on the AFQT rose by 21,700 in FY 1981 over FY 1980 (Table 11). This represents an increase from 69 percent in FY 1980 to 82 percent during FY 1981. The Army experienced the largest increase--from 50 percent to 69 percent. These increases in AVF recruit quality resulted from intensified recruiting efforts, increased emphasis on the recruitment of highly qualified youth, enhanced military pay, compensation, bonuses, and benefits, a much improved public attitude toward the military and the economy.

Table 11
NON-PRIOR SERVICE ACCESSIONS--MALES AND FEMALES
AFQT CATEGORIES I-III
(Thousands)

	FY 1981		FY 1980*	
Service	Number	Percent	Number	Percent
Army	81.5	69	79.3	50
Navy	80.6	88	72.5	82
Marine Corps	35.7	87	30.6	73
Air Force	71.4	93	65.0	91
DoD Total	269.2	82	247.5	69

*Revised FY 1980 AFQT Distributions

In 1980 we sponsored a major research effort to assess the vocational aptitudes of contemporary youth in general. Data were obtained by administering the ASVAB to a nationally representative sample of about 12,000 young men and women. The results of this study enable us to make, for the first time, a valid comparison between the test scores of AVF recruits and the general youth population from which they are drawn.

Table 12 compares the AFQT score distributions of FY 1981 non-prior service accessions with the score distributions of the youth population in general. Since the Services primarily recruit individuals who are 18 and older, we compared them with persons who were between the ages of 18 and 23 at the time of testing. It can be seen in Table 12 that DoD enlisted a slightly smaller proportion of individuals with above-average scores (Categories I and II combined) than were found in the 1980 youth population. However, the proportion of recruits scoring in the average range (Category III) was considerably higher and the proportion of recruits in the below-average range (Categories IV and V combined) was lower than the norm. In fact, 80 percent of all AVF non-prior service accessions in FY 1981 received scores within AFQT Categories I through III, compared with only 69 percent of young people in general.

Table 12
COMPARISON OF THE AFQT CATEGORY DISTRIBUTIONS OF THE
1980 YOUTH POPULATION AND FY 1981 NON-PRIOR SERVICE ACCESSIONS
(Percent)

Population	AFQT Category*					
	I	II	III	IV	V	TOTAL
1980 Youth Population	4	33	32	24	7	100
1981 Accessions						
DoD	3	30	47	20	0	100
Army	2	21	43	34	0	100
Navy	3	35	48	14	0	100
Marine Corps	3	30	53	14	0	100
Air Force	3	39	50	8	0	100

*Category V personnel are not eligible for enlistment.

In FY 1981 DoD exceeded the quality standards mandated by Congress on non-prior service enlistees. While DoD is committed to manning the force with the right numbers and kinds of recruits, we continue to believe that these restrictions hinder management flexibility, require additional recruiting resources and could affect our ability to meet manpower requirements in the future. We feel, therefore, that these restrictions should be rescinded.

Table 13
CONGRESSIONAL CONTROLS ON QUALITY ACCESSIONS
(FY 1981 and FY 1982 DOD Authorization Acts)

Fiscal Year	Maximum Percent Category IVs	Minimum Percent High School Graduates
1981	25 DoD Average	65 - Army Males
1982	25 Each Service*	65 - Army Males
1983	20 Each Service	No Restrictions

*The FY 82 Authorization Act requires all Category IV enlistees to be high school graduates.

In FY 1981 we enjoyed a very successful recruiting year. However, it is important that comparisons be put into perspective. FY 1981 was marked by a sluggish economy, a very large increase in military pay and compensation, a more favorable public attitude toward the military and sufficient recruiting resources. In the future it is possible that these factors may become less favorable. Moreover, a declining youth population--the most predictable challenge facing military manpower procurement programs for the remainder of the 1980s--as well as increased efforts by academia and industry to recruit a greater share of that declining population, may also make recruiting more difficult. We are attempting to meet this challenge by reducing the demand for new male accessions through reducing attrition, increasing the career content of the force and enhancing our enlistment inducements.

We have implemented various management initiatives to increase recruiter productivity and improve recruiting management. We doubled the size of Joint Service advertising for enlisted recruiting programs by adjusting the overall Services advertising budgets. We have been working with various intergovernmental agencies to place military career/occupational information in high schools, post-secondary schools, and state employment agencies. The Services have redesigned recruiter training courses, revised policies on selection and retention of recruiters, implemented actions to improve the alignment of recruiters and markets, modified competition systems to emphasize quality enlistments, and are enhancing their automated job reservation systems for quicker and more accurate response and better quality control.

In order for the Services to continue to attract and retain the manpower we need to sustain force readiness, it is essential that a Service enlistment continue to be perceived as an honorable, rewarding career choice and that the Services have a competitive enlistment package with the requisite level of recruiting resources to make youth aware of Service opportunities.

The recruiting resources we are requesting in the FY 1983 President's budget are being programmed to address both the increased accession requirements and the Congressional mandate concerning recruit quality. By way of illustration, because of DoD and Service actions taken to correct the enlistment test calibration problem that occurred during FYs 1976-1980 and meet the FY 1982 Congressional constraint on Category IV enlistments, the Army in FY 1982 must recruit 24,700 more men and women from the upper mental categories than it attracted in FY 1980. This problem is compounded in FY 1983 because there will be a further increase in accession requirements and the Congressional constraints will become even more restrictive. The Army's efforts to meet these increased quantity and quality requirements in FY 1983 will have an impact on the recruiting efforts of all the Services and will cause a substantial increase in our demand for high quality youth--with no corresponding increase in supply. In short, greater effort will be demanded of our recruiting force and it will be more costly. It is therefore imperative that the Services be provided the requested recruiting resources for FY 1983.

Bonuses are a highly flexible and efficient means of improving recruiting because compensation dollars are applied to specific recruiting problems. Enlistment bonus levels and the skills for which bonuses are offered can be adjusted to reflect supply and demand. The Department of Defense appreciates the enactment of the Uniformed Services Pay Act of 1981 which authorized an increase from a maximum bonus payment of $5,000 to $8,000 for a four-year enlistment. In addition, the new pay legislation authorized up to $4,000 as a bonus for a three-year Army enlistment. This more flexible program will allow DoD to react quickly to future recruiting and manning problems that may arise because of an improving economy and a reduction in the size of the youth cohorts in the 1980s.

As directed by Congress, DoD is designing a test using the full range of enlistment bonuses authorized to test the effectiveness of various bonus levels for four-year enlistments, various bonus levels for three-year enlistments, and the interaction between the three and four-year bonus programs. The test program should be implemented by late FY 1982.

As we face a tighter recruitment market in the 1980s, it is reasonable to assume that enlistment bonuses will continue to be an important tool in achieving our recruiting goals. The exact amount of future enlistment bonus payments will naturally have to be balanced with the availability and magnitude of other recruitment incentives.

Educational Incentives

The Department of Defense, after more than a year of consideration and evaluation, has recommended to the Congress that it continue the present program of educational benefits for the Armed Forces. The decision was made against the background of the recent successes in achieving recruiting and retention goals. In light of these successes, the administration has decided that it does not now need to spend the large amounts of money a broader educational program would cost.

Educational benefits are part of a comprehensive package of compensation and benefits which has increased substantially in the last two years. The package now contains significantly better pay, bonuses and reimbursements, and a more generous housing allowance. In response to these improvements and to a new sense of patriotism, the quantity and quality of young men and women volunteering for service has exceeded all expectations. Of the over three hundred thousand enlistees in FY 1981, 81% were high school graduates, and the percentage scoring average or above on the Armed Forces Qualification Test increased from 69% in

FY 1980 to 82% in FY 1981. These trends have become even more favorable in the current year.

During FY 1981 the Department tested a number of educational benefits programs and found that they can be effective in recruiting high quality personnel into the Armed Forces. But the test showed that uniform benefits across the Services would reduce high quality enlistments in the Army. In addition, offering the same benefits to enlistees in all skills will draw recruits out of the combat arms. The Department decided, therefore, that an educational benefits program needed to be targeted to increase the total number of high quality recruits to all Services, and should not offer benefits which are so large as to provide a strong incentive for members to leave the Service.

Finally, we looked closely at the DoD budget and concluded that the Department could not afford a new broad non-contributory education program because of the other demands for limited resources.

Given all these factors -

- recruiting and retention success;
- the results of the FY 1981 test; and,
- budget constraints -

DoD has endorsed a three-part educational benefits program. The proposal would:

- continue the present Veterans Educational Assistance Program (VEAP) including the program of supplementary payments to recruits in critical skills. This program would allow educational benefits as large as $20,000 for a 4-year enlistment in a critical skill.
- extend the current 1989 delimiting date for use of GI bill benefits to 10 years after the member leaves service or retires. This would eliminate a strong incentive for many mid-careerists to leave the Service.
- continue the present programs for the Selected Reserves, which offers up to $4000 to members in certain skills.

The Department of Defense, along with the President's Military Manpower Task Force, has surveyed these programs and alternatives, and concluded that while some type of non-contributory educational program might be beneficial, its cost (which might reach $2 billion annually) could not be justified at this time in the face of recruiting success, resource constraints and the availability of other, more cost-effective recruiting incentives. We will continue to monitor the situation and will recommend a broader program to the Congress should it be necessary.

Enlisted Career Force

Career manning in each Service is a function of reenlistment propensity, cohort size, skill mix, and overall requirements. Difficulties in manning the Services with careerists--those with more than four years of experience--did not occur overnight and will not be corrected quickly. Quite possibly the single most important loss during the volunteer era was the exodus of unusually large cohorts of experienced people who entered service in the Korean War period and reached retirement eligibility in the 1970's. At the same time a series of small cohorts--resulting from the low first-term reenlistment rates during the Vietnam years--entered the career force. Eroding military pay and reenlistment bonuses, degraded living and working conditions, and the spiral effect caused by longer hours and more overseas/sea tours for those who remained combined to increase the number of people who left the Services.

As a result, all the Services have had and will continue to have substantial shortfalls in mid-career level people. Experience-level shortfalls can only be solved through consistent reenlistment success over a number of years. Five to six years of successful retention of young careerists now in service will be needed to reduce the shortage of personnel with 12 to 20 years of experience. Until we rebuild our experienced human capital base, the Services will continue to substitute people with less experience. Each Service is striving to ensure the increased retention of young and mid-level careerists--a goal each has succeeded in achieving--for the past two years.

For this reason, and as a result of mission requirements, study recommendations, and improved retention, we estimate that AVF career force strengths will grow substantially in the FY 83-87 period for all the Services. A proper balance of experience levels is unique to each particular Service, and each is reviewing its career force objectives. The likely outcome is a force with a richer career content. The Services may temper growth in their career force to some extent by raising reenlistment standards to upgrade the caliber of their career personnel. The estimated growth in the career force reflecting increased end-strength and increased career content is shown in the following table:

Table 15
Enlisted Career Force
(5 to 30+ years of service)

FY	Army	Navy	Air Force	Marine Corps	Total
81 Actual	283.4	201.2	233.8	49.5	767.9
82	297.1	212.2	241.5	54.0	804.8
83	298.5	222.9	245.3	56.1	822.8
84	300.5	234.2	249.8	58.5	843.0

Retention in the AVF has shown significant improvement. The major problem we inherited from the 1970s--a discouraged outlook on the part of our military personnel, manifested in declining retention and poor morale--has been solved. The 1980 and 1981 pay raises, expanded eligibility and increased rates for special and incentive pays, and an enhanced bonus program have confirmed to military people that the trend of the late 1970s is being reversed by restoring military pay to a level competitive with the civilian sector.

Table 16

DOD Reenlistment Rates 1/
Active Duty Enlisted Personnel

	FY 74	FY 75	FY 76	FY 77	FY 78	FY 79	FY 80	FY 81	FY 82 (Thru Mar)
First Term									
Army	33.2	38.6	21.4	33.1	35.6	43.0	50.6	55.0	71.3
Navy	32.9	39.9	35.2	36.9	40.3	37.5	36.7	41.7	55.8
Marine Corps	16.6	20.4	26.4	29.4	29.1	19.5	23.2	26.6	44.2
Air Force	31.1	40.1	37.3	39.0	41.1	38.0	35.8	42.9	58.7
DOD	30.0	36.8	29.8	35.0	37.1	37.4	39.1	43.0	60.2
Career									
Army	74.5	75.4	70.8	69.5	68.6	66.4	69.3	72.6	86.8
Navy	80.3	80.5	74.8	68.1	63.5	62.2	67.0	72.8	81.6
Marine Corps	79.6	73.1	77.6	71.6	69.1	51.9	50.4	73.8	77.8
Air Force	89.8	89.6	81.9	86.2	82.2	81.5	81.8	86.1	90.3
DOD	81.4	81.5	76.3	74.8	71.5	68.2	70.5	76.5	85.7
Total									
Army	51.0	53.1	42.9	51.8	53.9	56.2	62.2	66.7	79.4
Navy	54.4	58.2	49.7	49.4	50.5	47.3	48.2	54.6	68.3
Marine Corps	29.3	33.9	41.4	42.8	42.5	33.5	35.4	43.2	57.3
Air Force	57.9	68.1	61.9	65.9	66.2	60.4	60.0	65.8	75.1
DOD	51.6	56.6	50.5	54.5	55.1	52.9	55.4	60.6	72.9

1/ Excludes inductee reenlistments.

While we are optimistic about future success, difficulties remain. Certain skills, either because of their arduous nature--such as combat arms skills--or the high level of competition from civilian industry--such as electronics, nuclear, and computer skills--have either severe shortages, extraordinarily high replacement costs, or both. Operating and maintaining an increasingly complex and demanding military force require special pay incentives to retain personnel in undermanned critical skill assignments. As overall retention and experience levels improve, we must align manpower demand and supply in all skills and prevent skill imbalances from developing. Selective reenlistment bonuses (SRB) are a flexible and cost-effective way of competing in the labor market for skills critical to the military. An adequate compensation base and aggressive but judicious use of special monetary incentives will contribute significantly to solving retention and experience problems in specific skills.

The FY 1982 Defense Appropriation Act and accompanying Conference Report dramatically affected the administration of the SRB program. The Conference Report directed the Department of Defense to submit a report not later than May 1, 1982 which provides a thorough evaluation of possible modifications or alternatives to the present system for determining reenlistment bonus awards. As directed, possibilities such as the elimination of the direct link to basic pay, fixed sum amounts, and the use of fractional bonus multipliers were considered in our report. As a result of our evaluation, the Department will authorize the use of fractional multipliers of one-half within the existing bonus computation structure.

The Act and Conference Report also directed that the practice of paying the full bonus in a lump sum be terminated. The Conferees agreed that reenlistment bonuses should be paid on a modified lump-sum/installment basis (up to 50 percent of the total bonus paid as the first installment with the remaining portion paid in equal annual installments over the rest of the reenlistment contract period). Our SRB report presents analyses that show that lump-sum payments yield a greater number of reenlistments and longer average obligated service lengths than the same nominal amount paid in some deferred fashion. Based on these analyses, the Department believes that a return to a lump-sum payment at the earliest opportunity is the most appropriate action to take.

In December 1981, before beginning to use the FY 1982 pay raise in bonus computations, the Services accelerated their normal semi-annual reviews of bonus levels. These reviews were completed by mid-January 1982 and as a result bonus levels have been reduced for 59 skills and 65 skills removed from the SRB program.

In summary, current reenlistment rates are among the highest ever experienced. The increases are attributed to the compensation initiatives recently enacted and to aggressive use of reenlistment bonuses by the Services. Increased retention rates have not yet proven to be permanent or sustainable and, in the short run, they do not solve problems such as individual skill shortages, quality and distribution imbalances. Substantial skill/grade shortages and imbalances still exist within the total number of careerists. The Services have started implementing policies and procedures needed to maintain the career force and redistribute careerists into shortage and imbalanced skills. The prospect of an improving economy and an expanding industrial base will make retention more difficult. Increases in force strength will put additional pressure on our retention effort. I believe, however, that our lessons learned from the mistakes of the past will enable us to continue making the AVF a success.

Training

When the Services receive new recruits, it is vitally important that they be properly trained in fundamental military skills and transformed into disciplined service members. Each new member must then be taught a specific military skill. The Services continuously review the courses that provide this training to make sure they are current and the trainees will be productive when they join their operational units. Recent reviews have led to the conclusion that two types of training for new recruits should be lengthened to a moderate degree:

- The Army is adding one week to its recruit training and one-station unit training (OSUT) courses, as approved in the FY 1982 budget. The extra training time will allow more thorough training in combat skills and a more rigorous emphasis on discipline.

- The Air Force is continuing the increase, begun in FY 1982, in the average length of its initial skill training courses. The goal in FY 1983 is an average length of 12.3 weeks--1.3 weeks over their average length in FY 1981. However, the new length will still be well below the 14-week average that existed in 1975. Most of the increase will be applied to maintenance training in order to raise the standard of maintenance work by lessening the training burden on operational units and providing them with better qualified maintenance personnel.

While more adequate compensation is improving NCO retention, the Services still are short of middle-grade NCO's, especially in technical skills. Many junior NCO's who occupy positions that would normally be filled by middle-grade NCO's lack technical knowledge and experience required for their positions. Each of the four Services is taking action to provide more training to support NCO development.

Providing operational units with individuals who are properly trained in required skills is a first step in the training process. The second step is to develop team skills so that operational units, from squads to large joint forces, are ready to carry out their wartime missions successfully. Since unit training can be very costly, especially in terms of fuel and ammunition, it is critical that we make sure all such training is as effective as possible in raising unit proficiency.

Modern training technology is helping us to achieve this objective. The training we are now offering at the Army's new National Training Center (NTC) at Fort Irwin, CA is a prime example. Fort Irwin has the space and facilities for wide-ranging opposing-forces maneuvers and live-fire exercises by battalion-sized armor task forces. Personnel of two battalions, usually one tank battalion and one mechanized infantry battalion plus supporting units, fly to the NTC, draw equipment and engage in two weeks of intensive exercises. In the opposing-forces phase, the battalions maneuver against an "enemy" force that uses actual or simulated Soviet equipment and Warsaw Pact tactics. Both sides are equipped with MILES, a system of low-intensity lasers that simulate direct fire and laser detectors which register hits and near misses. This equipment makes it possible to learn how to defeat an enemy by fire and maneuver without taking excessive casualties--lessons that cannot be learned as effectively in conventional, dry-fire maneuvers. In the live-fire phase, the battalions maneuver against an array of hundreds of pop-up targets that appear and disappear in sequences that simulate standard Warsaw Pact tactics. During both phases instrumentation continuously records the location on the ground of each maneuvering player, shots fired and the results. This information, fed to a central control center, becomes the basis for detailed post-exercise reviews with the player units. This type of training turns what would otherwise be a rather routine, sterile exercise into a profound learning experience that will be invaluable in the shock of combat.

The Army has no training areas in Europe comparable to the National Training Center. The available training areas are small, and their space is largely taken up by permanent firing ranges. Consequently, most maneuver training, especially for large units, must take place on public and private property outside of the training areas. The recent actions of the Congress in reducing funds to pay claims for damages caused by U.S. forces during these maneuvers is a matter of the greatest concern. The U.S. is committed by treaty to pay these claims. Failure to meet these obligations could put our right to maneuver at risk, with potentially grave consequences for the readiness of our forces. The view in the Congress that reducing these funds can force a favorable renegotiation of agreements with our allies is not realistic. The more likely result of renegotiation would be that we would get less favorable terms then we have now. I strongly urge the Congress to provide the full amount of funds requested to pay maneuver damage claims.

The Department's interest in simulation in training is undergoing two important changes in emphasis. First, without reducing the degree of emphasis on flight simulators, we have become increasingly interested in the potential of simulation as a means of improving the quality of other types of training. Second, we have concluded the chief value of simulation is in raising the effectiveness of training rather than in saving operating costs, although, of course, when costs can be saved without undue sacrifice of the gains in training effectiveness, we will capitalize on the savings. Two examples will illustrate these points.

Perry-class frigates must be able to cope simultaneously with air, surface and sub-surface threats. It is difficult to duplicate the multiple threat in exercises at sea and impossible to replicate parts of it, such as incoming anti-ship missiles. The Navy is developing a pierside, van-mounted trainer that will simulate the threat as a whole so that combat information center and sonar teams can develop skills while the ship is in port. The payoff lies in having a crew that can operate the frigate in combat at close to its full potential rather than at some lower level.

The Air Force is using a set of maintenance simulators to train mechanics of units changing to F-16's. Without simulators a unit would either have to have extra aircraft to train mechanics, which would be very expensive, or divert aircraft from aircrew training, which would extend the time the unit remains in transition and is not combat ready. Further, mechanics can be trained quicker on simulators than on the actual aircraft. They can also practice procedures that cannot be safely practiced on operational aircraft--for example, detuning engines so the students can learn to tune them.

I wish to draw your attention to a cooperative international training project now in operation after eight years of study and negotiation. The Euro NATO Joint Jet Pilot Training (ENJJPT) program was formally opened at Sheppard Air Force Base, TX, in October 1981. ENJJPT operates on the principle of proportionate funding and sharing of instructor pilot manning and it uses a syllabus agreed on by the 12 participating nations. Ultimately, the program will have a capacity of 320 graduates per year, 110 of them US. We anticipate that training together will do much to enhance the ability of the NATO air forces to cooperate successfully in combat.

In summary, we are making substantial strides toward better training. With the continued support of the Congress, we will provide our service members and military units with the tough, realistic training they must have to meet the challenges that lie ahead.

Officer Accession and Retention

With a few exceptions, we are achieving desired officer accession and retention objectives. Unfortunately, the exceptions are in the high skill, high cost areas, such as the pilot, nuclear qualified, and engineering officer communities.

In regard to aviators, we believe that actions taken last year--raising warrant officer flight pay to comparable levels authorized for commissioned officers, increasing air crew incentive pay, authorizing aviation continuation bonuses for the Navy and Marine Corps, and implementing a voluntary recall program--will continue to help reduce shortages for all services in the long run.

We have also committed ourselves to reduce shortages that currently exist in certain engineering communities. Again, we believe the principal factor behind these shortages has been the gap in compensation between civilian industry and the military. Further, we feel these shortages can be reduced to manageable levels through judicious application of Congressionally approved increases in ROTC scholarships and the engineer continuation bonus. We anticipate these two actions will enable us to reach both our accession and retention goals in this highly competitive market.

Women and Minorities

Military women are a very important part of our total force capability. In the past decade, in contrast to prior years, the numbers of military women have increased rapidly because of two developments: first, the desire of women throughout our society to achieve the equity of pay and job opportunity enjoyed by their male counterparts; second, the willingness of highly qualified women to take advantage of the rewarding and satisfying careers available in the military.

In response to these considerations we rapidly increased the numbers of women in our total force as can be seen in Table 17. Overall, the percentage of women in our active duty force has risen from 1.5% in 1972 to 8.9% today. In 1972 there were 12,600 female officers in the services; in 1981 they numbered over 23,300. In 1972 there were over 32,400 enlisted women on active duty. By the end of FY 1981 there were 156,800.

The surge in numbers of military women was accompanied by a significant expansion in the numbers of skill areas open to them. Today, 95% of all skills are open to women. Only positions classified as combat or closely related to combat are closed. Among open skills, however, women are only marginally represented in ones traditionally considered to have potential for combat--such as assignment to flight crews. The Army's constraints are a matter of policy, not law, whereas constraints in the other Services are the result of statutes and policies derived from the statutes. Consequently, Navy

Table 17

Women in the Military 1971-1981

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
DOD	42,323	44,498	55,070	74,457	96,750	109,038	117,722	133,292	149,937	170,238	183,594
Army	16,874	16,770	20,738	30,695	42,333	48,645	51,367	56,570	61,692	68,959	73,266
Air Force	14,850	16,491	19,755	24,232	30,213	34,202	39,602	46,720	53,320	59,890	63,019
Navy	8,346	8,908	12,289	16,792	21,017	22,738	22,917	24,917	29,057	34,683	39,693
Marines	2,253	2,329	2,288	2,738	3,187	3,453	3,836	5,085	5,958	6,706	7,616

and Marine Corps women are restricted from assignment to combatant ships (except temporarily) and Navy, Marine Corps and Air Force women may not be assigned as crew members on aircraft designated as combatant. Policies in all of the Services prohibit the assignment of women to units whose mission is to engage the enemy in combat. OSD is in the process of reviewing the effect of the current definitions of combat on the career progression of military women.

During this same 10 year period there was also a shift from the employment of women in the traditional skills (primarily clerical and medical fields) toward nontraditional skills (such as the fields of communications and equipment repair). For example, in 1971, about 54 percent of all military women were in the support and administrative skill area as compared to about 35 percent in 1981.

The expansion of opportunities for women has been beneficial for women and for the military. Numerous studies and actual job performance measures have shown that military women perform their jobs and assigned tasks in a highly effective and professional manner. The most recent of these was conducted by my staff in conjunction with the Services. The results were published in October 1981 in Background Review - Women in the Military. The Review reported on such areas as the accession and representation of active duty women over the past 10 years, the training available to them, their job performance, and their promotion rates. It pointed out the areas on which we must continue to work in order to integrate men and women into successful teams. Examples of these are appropriate leadership and supervisory training, availability of uniforms and equipment for women, and physical standards and testing to assist in the occupational assignment of individuals--both men and women. The Review's basic finding, like several other reports, is that military women are exhibiting the same high degree of competence that military men have.

The Services currently plan to increase the number of military women from 180,000 to about 209,000 over the next five years. In our annual program development process we have and will continue to review recruit, assignment, utilization, and mission capability aspects of women in the military. Decisions in these areas will be reached on the basis of sound analyses, not biases and emotionalism.

The minority composition of the armed forces began to grow during the Vietnam War, and it has continued to increase even more rapidly in the All-Volunteer Force.

The overall minority composition of the active armed forces is now 27.6 percent. The composition of the officer force includes 9.4 percent minorities, while the enlisted force is 30.5 percent.

The female population of the armed forces is 31.6 percent minority. 16.3 percent of all female officers and 30.2 percent of the female enlisted force are members of minorities.

In the male-only population, minorities constitute 27.2 percent of the total active force--8.8% of all male officers and 30.2 percent of enlisted members. During the period FY 82-84 we predict no significant changes in the percentages of minorities in the armed forces. Tables 18 and 19 present a detailed racial/ethnic and gender breakout.

The Department of Defense is deeply committed to equal opportunity and the equitable management of all human resources. Our goal is to allow each person in the armed forces to realize the fullest of his or her potential in any career field for which he or she is qualified, regardless of gender, race, or ethnicity.

Quality of Life

The human dimension of service life--the environment in which our military people live and work--is a primary concern of this Administration. It demonstrates our conviction that Armed Forces personnel are our most important asset. Improving the Quality of Life is vital to the recruitment, retention, discipline, morale, and readiness of military members.

Table 18

Minority Enlisted Composition of the All Volunteer Force (AVF)

Enlisted-Male/Female

Black	Hispanic	American Indian Alaskan Native	Asian Pacific Islander	Other
394,803 (22.1%)	72,376 (4.1%)	13,571 (.8%)	38,270 (2.1%)	25,137 (1.4%)

Enlisted-Female Only

Black	Hispanic	American Indian Alaskan Native	Asian Pacific Islander	Other
43,973 (27.4%)	5,059 (3.2%)	1,335 (.8%)	1,769 (1.1%)	2,096 (1.3%)

Enlisted-Male Only

Black	Hispanic	American Indian Alaskan Native	Asian Pacific Islander	Other
350,830 (21.6%)	67,317 (4.2%)	12,236 (.8%)	36,501 (2.2%)	23,041 (1.4%)

Table 19

Minority Officer Composition of the All Volunteer Force (AVF)

Officer-Male/Female

Black	Hispanic	American Indian Alaskan Native	Asian Pacific Islander	Other
14,133 (5.3%)	3,318 (1.2%)	969 (.4%)	2,653 (1.0%)	4,145 (1.5%)

Officer-Female Only

Black	Hispanic	American Indian Alaskan Native	Asian Pacific Islander	Other
2,385 (10.3%)	335 (1.4%)	87 (.4%)	373 (1.6%)	606 (2.6%)

Officer-Male Only

Black	Hispanic	American Indian Alaskan Native	Asian Pacific Islander	Other
11,748 (4.8%)	2,983 (1.2%)	882 (.4%)	2,278 (.9%)	3,539 (1.4%)

We are committed to improve the living and working conditions for our military personnel. Poor living and working conditions are hurting the readiness of our forces and are discouraging people from reenlisting.

Principal initiatives in Fiscal Year 1981 were to improve living conditions in remote, overseas locations; to upgrade the quality of child care programs; and to improve the delivery of family services for the 54% of Armed Services personnel who are married. To improve afloat conditions, the Navy is enhancing shipboard habitability. Although space on a ship is limited, amenities are being added to make sea duty somewhat more tolerable.

To improve conditions ashore, each service has constructed new facilities, or replaced or modernized existing inadequate facilities. However, these efforts have been underfunded in past years. Accordingly, at the end of FY 1982, the construction and maintenance backlog is expected to be $47 billion--about $10 billion of that backlog in Europe. The Department plans to increase expenditures on facilities to reduce the construction and maintenance backlog. Funding to reduce this backlog will nearly double between FY 1982 and FY 1987. This will enable us to cut that backlog in half.

Additional initiatives which we will start or request in FY 83 include educational and employment opportunities for spouses and improved medical and dental services for family members. In accordance with the President's program we will also direct more effort toward self-help projects and use of volunteers in community and youth activities.

Military Compensation

Beginning with the Nunn-Warner Bill in September 1980, substantial improvements have been made in military compensation over the past two years. These actions reversed an erosion in the levels of compensation and benefits that began in the mid-1970s and led to severe recruiting and retention problems. The Uniformed Services Pay Act, signed by President Reagan on October 14, 1981, continued the compensation improvement trend. Specifically, this act provided an overall 14.3 percent increase in basic pay, basic allowance for quarters (BAQ), and basic allowance for subsistance (BAS)-- the largest increase in the past 30 years; increased the rates and expanded the eligibility for hazardous duty incentive pay, increased aviation career incentive pay (ACIP) rates and provided ACIP to aviators performing operational flying duty after 25 years of service; equalized warrant and commissioned officer ACIP rates; provided authority for increased diving duty pay (from $110 per month to $300 per month for enlisted and $200 per month for officers); increased the maximum enlistment bonus from $5,000 to $8,000 and provided the authority for a 3-year enlistment bonus program for the Army; authorized a scientific and engineering continuation bonus for officers; and made a number of improvements to travel and transportation allowances.

With the substantial improvements in compensation we believe that service pay is no longer a deterrent in achieving our recruiting and retention goals as it was in the mid-to-late 1970s. Our major need in the future is to maintain the gains that have been made. We must also ensure that military compensation levels are not allowed to deteriorate vis-a-vis civilian pay levels as was the case in the 1970s. With the exception of several selected initiatives, such as a dental program under CHAMPUS for military dependents and increased cost of reimbursements for change of station moves, our primary objective in compensation will be to provide military pay raises that match salary increases in the private civilian sector and allow us to remain competitive in meeting our manpower requirements.

III. RESERVE FORCES MANPOWER

The Ready Reserve of the United States constitutes an armed force of over 1.3 million men and women whose sense of duty and demonstrated ability is a cornerstone of our national defense posture. The Reserve Components make a large and indispensable contribution to the daily work of our Active Component forces. Their mission today demands that they be as dedicated and professional as their Active Component counterparts. The capabilities they represent have resulted in their full integration into the daily operations and contingency requirements of the Total Force. In many senses they are part time professionals.

In addressing the subject of Reserve manpower it is important to recognize that Reserve Component units of the Army, Navy, Air Force and Marine Corps and Army and Air National Guard supply one-half of the combat and two-thirds of the combat support capability of the Total Force. Many of these units will be committed to combat immediately following mobilization, some of them before regular units. Therefore, enhancing the recruiting and retention of personnel for the Guard and Reserve and ensuring that their equipment and training lead to true combat capability are vital to our national security.

Selected Reserve Strength

The past three years have been increasingly successful in improving the strength of the Ready Reserve, both Selected Reserve and Pretrained Individual Reservists. This growth follows a period from FY 1974 through FY 1978 in which strength drastically declined. The first five months of FY 1982 continued to show increases in strength.

Table 20 displays the strength of the Selected Reserve by component for the period end-FY 1981 through end-FY 1984.

Table 20
SELECTED RESERVE STRENGTH BY COMPONENT
(End FY - 000's)

Component	FY 1981 Actual	FY 1982 Estimate	FY 1983 Request	FY 1984 Planned
Army National Guard	389.0	398.0	417.0	435.9
Army Reserve	225.2	251.9	268.5	286.2
Naval Reserve	87.9	94.0	105.8	106.5
Marine Corps Reserve	37.0	38.5	39.7	41.0
Air National Guard	98.3	100.1	101.8	103.2
Air Force Reserve	61.6	63.7	66.6	68.6
DOD Total	899.0	946.2	999.5	1,041.4

Overall, the FY 1983 request will allow the DOD to fill 86% of its Selected Reserve wartime unit requirements. The trained strengths of the Air Components and the Marine Reserve are between 95% and 98% of their requirements for FY 83. The Army Components are filled at 85% of their requirements and the Naval Reserve at 81%.

From the end of the draft and the beginning of the All-Volunteer Force in FY 1974 through the end of FY 1978, the Reserve Components experienced a significant decline in strength--136,800 men and women. In the Army National Guard and Army Reserve alone this decline totaled 111,500. Since FY 1979 the Department has had an aggressive program to build strength in the Selected Reserve. This section will concentrate on those initiatives which have been successful in rebuilding that strength.

In FY 1979 Congress authorized and funded an incentive program for enlistment and reenlistment in the Selected Reserve. This program has been increased every year since then. Its actual cost was $12.8 million in FY 1979, $23.5 million in FY 1980 and $47.0 million in 1981. We expect to spend $74.4 million in FY 1982, and are requesting a total of $94.8 million for these incentives for FY 1983. The authorized incentives are an enlistment bonus, educational assistance program, reenlistment bonus, affiliation bonus and a student loan repayment program. The latter two were authorized for FY 1981 but their effects will not be measurable until sometime later this year. The FY 1982 DOD Authorizations for Appropriation Act extended the authority for the Affiliation Bonus through FY 1985 and Loan Repayment through FY 1983. As reflected in our 1978 reenlistment test program, the average term of commitment was 4.4 years for the test region and 1.3 years for the control region. This significant change in term of commitment is reflected in the increasing strength of our Reserve units.

In addition to a successful incentive program, we offer non-prior service individuals shorter enlistment terms in the Selected Reserve. Those joining the Army Selected Reserve may do so for a 3-year term with 3 additional years to be served in the IRR. Those joining other Services' Selected Reserve may do so for 4 years, with a balance of 2 years in the IRR. In the past a full 6 years in the Selected Reserve was required of all enlistees.

To make Reserve service available to more people, a split training option was begun to allow students to participate in the Selected Reserve without interfering with normal school schedules. By splitting the usual 12-week initial active duty for training period into two increments, we can enlist high school and college students while they are still in school.

The unprogrammed loss of members before they completed their contractually-obligated term was once the major cause of strength shortages. To combat this, a program for the control of attrition has been implemented. This program encompasses the establishment of loss reduction goals; an accession cohort tracking system for better management; an increase in the Full-Time Support Program to upgrade training and readiness; revision of existing outmoded regulations; research in recruiting and retention; improvement of financial incentives; and improvement of training and leadership. The gain in the past three fiscal years of over 111,000 personnel as opposed to the loss of 109,000 in the preceeding three fiscal years, is ample evidence of our programs to counter attrition.

Pretrained Individual Manpower

One of our most serious concerns is that enough individuals with prior military training are immediately available as fillers for understrength units and replacements for casualties during the early days of a full mobilization before new enlistees or inductees can be called up and trained. This demand can only be met by pretrained manpower--members of the Individual Ready Reserve (IRR), Inactive National Guard (ING), Standby Reserve and retired military personnel.

Pretrained Manpower Strength and Initiatives Through FY 1981

Initiatives to improve IRR strength have resulted in an increase of about 77,000 individuals since its low point in mid-1978. These initiatives, primarily no-cost legal or policy changes, included stopping automatic transfers to the Standby Reserve, improving personnel management, streamlining administrative transfer procedures between the active force and the IRR, transferring individuals with mobilization potential to the IRR in lieu of discharging them from the active force, and giving women and enlistees 26 years of age and older the six-year service obligation. Other initiatives, already implemented, which will increase the size of the IRR in future years include starting an enlistee's six-year obligation from the time he/she begins active duty instead of from the time he/she signs an enlistment contract and requiring prior service enlistees to complete any portion of the unfulfilled six-year military service obligation.

While these low-cost or no-cost initiatives have significantly increased IRR strength, by themselves they cannot increase strength sufficiently to meet wartime requirements. The no-cost initiatives have been virtually exhausted. Without new programs to retain people in the IRR or provide another method of entry into it, IRR strength should remain relatively constant. However, we have experienced a decline in IRR strength since the end of FY 1981. This decline is attributable to a drop in non-prior service enlistments in the active force during the late 1970's. Current higher reenlistment rates in the active force and increases in Selected Reserve strength also contributed to the decline because some of these members would have otherwise been in the IRR. While the current economic situation assists active force and Selected Reserve recruiting and retention, it exacerbates the decline in the size of the IRR.

Table 21

ARMY TRAINED MANPOWER REQUIREMENTS AND SUPPLY
FOR MOBILIZATION
(000s)

	End Fiscal Year 1980	End Fiscal Year 1983
Requirements	1,743	1,974
Manpower Available from: 1/		
Active Force and Selected Reserve	1,296	1,379
IRR/ING	149	214
Standby Reserves	9	0
Retirees	40	101
	1,494	1,694
Shortfall		
Number	249	280
% of Requirement	14%	14%

1/ Assumes different rates of availability from each manpower source.

Because the Army has the most serious mobilization manpower shortfall, the preceding table shows the FY 1980 Army requirements and supply of trained manpower and current projections for FY 1983. The shortfall is shown at its peak--about 90 days after a decision to mobilize for a major war in Europe that starts with little warning. At this time volunteers and inductees who enter the Armed Forces after M-Day will still be at the training bases.

The supply of mobilizable manpower is projected to increase by over 200,000 from FY 1980 to FY 1983, while Army requirements will increase by about half that number, resulting in a smaller shortfall in FY 1983 than in FY 1980. It should be noted that these are aggregate shortfall numbers which assume that all personnel are interchangeable; e.g., officer overages compensate for enlisted shortages. When manpower requirements and supply are separated for officers and enlisted personnel and then by skill, the shortfalls are much more severe than the aggregate numbers shown in the previous table.

The long-term solution to the shortage of pretrained individuals is to increase the length of the military service obligation above its current level of six years. We have asked Congress to increase this obligation up to eight years. The amount of time served on active duty or in the Selected Reserve would not be affected but the time served in the IRR before normal discharge would be extended. This change would produce the manpower needed. However, because we do not think it should be retroactive, it will take six years after enactment before any gains in IRR strength are obtained. During the interim period other initiatives and incentives would be necessary to generate strength increases.

An enhanced IRR reenlistment bonus program appears to possess the greatest potential to increase IRR strength significantly in the near term. During FY 1981 Congress authorized a $600 reenlistment bonus for individuals who completed their military service obligation and reenlisted in the IRR or ING for three years. Initial results of this program seem to indicate that the bonus was too small to be effective in increasing strength to the desired degree. The bonus authority was not extended and the bonus ended on 30 September 1981. Currently the only benefit of IRR membership is the opportunity to serve the nation quickly in the event of war--not a sufficiently attractive inducement to cause many IRR members to reenlist.

A proposal was submitted to the Congress to reinstate and improve the IRR reenlistment bonus that was tested during FY 81. This program could be phased down or eliminated after the longer military service obligation goes into effect.

Another initiative is the IRR direct enlistment option that the Army will begin in FY 83. This program will seek to have individuals join the Army, attend initial training in shortage skills and complete their remaining service obligation in the IRR. These trained soldiers may either opt for service on active duty or in the Selected Reserve. Extended IRR service would require periodic refresher training for skills to be retained.

A proposal currently being considered would open eligibility for Servicemen's Group Life Insurance (SGLI) to members of the IRR. These Ready Reservists are subject to recall during a national emergency but are presently excluded from participation in this program. Since premiums would be paid by the individual concerned, it would be essentially a no-cost program to the government.

To be consistent with our goal to create a more viable pretrained manpower resource, we need to provide the Services with the funds and manpower to manage properly these assets. This management includes personnel records updating and maintenance; screening of key employees; providing physical examinations; establishing dependent entitlements; updating security clearances; offering training opportunities; and providing pay and other financial services when appropriate.

Our FY 1983 budget request includes resources to continue initiatives in such areas as peacetime preassignment and predesignation of individuals to mobilization positions, providing training opportunities for more IRR members, expanding service programs for the identification of mobilization positions that retirees can fill, maintenance of personnel files on retirees, peacetime assignment of retirees to mobilization positions, and streamlining mobilization procedures for Standby Reservists.

We are confident that this integrated program of strength increases and improved management can resolve the mobilization manpower shortages by 1990.

V. CIVILIAN MANPOWER

Civilian Employment Trends

The civilian workforce performs a broad range of tasks including research and development, medical care, procurement and supply, base operations, logistics support, depot maintenance and administration. It is DoD policy to minimize our requirements for uniformed personnel by employing DoD civilians or private contractors to perform jobs which are not needed for deployment of military rotation. The functions manned by civilians are essential in meeting Defense missions in war and peace.

Let me describe our current civilian workforce, past trends and future direction. As of September, 1981, DoD employed 1,019,500 civilians in support of military functions as follows:

Table 22

DOD CIVILIAN WORKFORCE

(000's)

Army	372.1
Navy	320.9
Air Force	246.2
Defense Agencies	80.3
Total	1,019.5

The distribution of civilians among the Components reflect individual service missions, workloads associated with those missions, and alternative resources including capital investment and cost-efficient contracting. Consequently, total civilian strength requirements and the distribution among the Components will vary from year to year.

About 8 percent of the total were indirect hire foreign nationals who support U.S. military forces overseas under contracts or agreements. The balance were direct hire subject to personnel policies and priorities established by DoD and its Components. In addition to civilians in support of military functions, 32,800 direct hire civilians supported civil functions primarily in the Army Corps of Engineers.

Within the direct hire workforce 65 percent were General Schedule employees, and 35 percent were blue collar workers subject to Federal Wage System rules. The average grade of our General Schedule workforce in September 1981 was GS-7.9. Approximately half ranked GS-7 or less.

The Department is a strong advocate of equal employment opportunity. Approximately one-fourth of our workforce are minorities and one-third are women. However, we need to give additional attention to increasing the minority and female representation in the higher GS grades and the Senior Executive Service.

Contrary to popular notion, only a very small fraction of our civilian workforce--4 percent--is employed in administrative overhead functions. Most DOD civilians perform functions essential to near-term readiness. For instance, distributing civilians by program element code indicates 42 percent of FY 1981 end strength supported logistics functions, and 14 percent worked in training, medical care and other activities directly supporting the needs of uniformed personnel. Approximately 9 percent were in General Purpose Forces operations; 2 percent in Strategic Forces Operations, 2 percent in Airlift and Sealift Operations, and 8 percent supported Guard and Reserve operations. Intelligence functions accounted for 9 percent and Research and Development accounted for 8 percent. We also assist other nations through support of alliances, foreign military sales, and other functions with approximately 7 percent of our workforce.

DOD employs a wide spectrum of occupational groups, all of which are linked to essential Defense missions. A short review of the distribution illustrates this point.

In FY 1981 the 608,000 white collar workers supporting Defense missions were distributed into broad functional occupational groups as follows:

Table 23

DOD WHITE COLLAR WORKERS OCCUPATIONAL DISTRIBUTION

Professional	17%
Administrative	23%
Technical	22%
Clerical	32%
Other	5%
Total	100%*

*Does not add to 100% due to rounding.

7 out of 10 professionals were scientists, engineers, or mathematicians who support research, development, procurement and operation of our weapon systems. One in 7 was an educator assigned to train our uniformed personnel or educate dependents of military personnel assigned overseas. The remaining 1 in 7 included medical and legal personnel, social scientists, librarians, audio visual specialists and intelligence specialists--all of whom support essential functions.

As of September, 1981, almost two of five in administrative personnel were employed in logistics management; about one in five was a data systems manager; one in seven was a financial manager; and one in twelve was a personnel administrator. The remaining 23 percent in administrative personnel worked in security administration, housing, facility, communications management, and other categories of administrative support.

Logistics and scientific and engineering technicians accounted for approximately half of our technician workforce. One-fifth were management technicians and the balance were medical, trainees, aircraft operators and various other specialists. One-third of the white collar workforce was made up of clerical personnel, secretaries two-fifths of this workforce, and clerks supporting logistics, financial, general office and miscellaneous functions comprised the balance.

The 327,000-man blue collar labor force was concentrated in 10 depot maintenance ship repair missions and base operations which these workers support. Skilled crafts accounted for 83 percent, including electronic mechanics and electricians, machine tool, metal workers, pipe fitters, aircraft mechanics and various mechanics, repairmen, production workers and technicians. The other 17 percent were employed in installation maintenance, logistics support and vehicle operation.

This description of our workforce highlights the tailoring of our manpower to distinct Defense missions. We employ skills we need in the quantity we need to meet our readiness objectives. We also accept the challenge to streamline our organizations and to transfer work to the private sector when it is cost efficient to do so.

Our intention to employ the number of civilians necessary to meet our essential readiness goals is demonstrated by the reversal of Defense employment trends of the previous decade. Civilian end strength declined by close to 30 percent between 1968 and 1980.

In FY 1981 this Administration reversed the trend as follows:

DOD Civilian Employment
(In Thousands)

	Actual					Programmed	
	FY 64	FY 68	FY 72	FY 80	FY 81	FY 82	FY 82
Total	1,176	1,393	1,159	991	1,019	1,034	1,035
Direct Hire	1,035	1,274	1,049	916	940	947	947
Indirect Hire	140	119	110	75	79	87	88

In the FY 1981 budget supplemental, a total of 19,600 additional strength was authorized to reduce depot maintenance backlogs, improve procurement, supply and contract administration and free uniformed personnel from duties not connected with their military occupational specialties. In addition, DoD used part of the 2 percent flexibility in FY 1981 to meet these objectives.

We have continued to pursue these objectives in FY 1982. Congress authorized a strength of 1,024,500 civilians. DoD has used its 2 percent flexibility to budget for a strength of 1,033,812. These increases were approved in order to complete work in-house that we thought would be accomplished through cost efficient contracting and to upgrade facilities in Europe, reduce Defense Investigative Service backlogs, and support increased workloads in the Defense Logistics Agency.

The FY 1983 budget submission of 1,035,482 end strength continues the emphasis on improving readiness. This budget was built on the basis of approved workload for all our functional areas. The budget submission reflects special emphasis to reduce unacceptable backlogs in depot maintenance and improve the work flow in critical areas such as procurement, supply and security administration.

In addition, we identified economies where possible. The distribution of strength among the Components and variations from previous years reflect shifts in high priority workloads from one year to the next and some changes in functions from one Component to another. We will continue to strive for streamlined civilian requirements so our resources are adequate to meet mission needs without exceeding the level necessary to do the job.

VI. SUPPORT REQUESTED FROM CONGRESS

Strengths Requested in Budget. The Department requests authorization of active and reserve military and civilian manpower for FY 1983 and FY 1984 as shown in the following table. Actual FY 1981 and planned FY 1982 strengths are shown for comparison.

Table 24
DEFENSE MANPOWER 1/
(000s)

	Actual	FY 1983 Budget		Request
	FY 1981	FY 1982 2/	FY 1983	FY 1984
Active Military	2,082.2	2,110.3	2,147.6	2,171.2
Selected Reserve	873.4	922.9	977.0	1,018.1
Civilian	1,019.5	1,033.8	1,035.5	1,035.5

1/ End of fiscal year strengths for active military and civilian; average strengths for Selected Reserve.

2/ FY 1982 Authorization Act (PL 97-86) authorized 2,107.8 active military; 926.7 Selected Reserve; and 1,024.5 civilians.

Active Forces. The following table shows planned active military strength by Service:

Table 25
ACTIVE MILITARY MANPOWER
(End-FY Strength - 000s)

	FY 1982	FY 1983
Army	784.4	783.8
Navy	553.0	569.2
Marine Corps	192.1	194.6
Air Force	580.8	600.0
Total	2,110.3	2,147.6

The Army strength for FY 1983 remains essentially the same as in FY 1982. FY 1982 strength is slightly higher than FY 1983 because more soldiers are in recruit training.

The increase in Navy strength results primarily from the addition of more ships, improved fleet manning, and increases in training support. The increase in Marine Corps strength is primarily to man additional air defense and logistic units.

The increase in Air Force strength supports additional tactical aircraft, fighter force modernization, ground launched cruise missiles, and increases in recruit training.

Guard and Reserve. The requested average strength for FY 1983 for the Selected Reserve is shown by component in the table below.

Table 26
SELECTED RESERVE STRENGTHS BY COMPONENT
(Average FY - 000s)

	Actual	FY 1983 Budget	
Component	FY 1981	FY 1982	FY 1983
Army National Guard	376.8	392.4	407.4
Army Reserve	216.7	240.1	258.7
Naval Reserve	87.7	90.7	105.5 1/
Marine Corps Reserve	35.8	37.6	38.3
Air National Guard	97.2	99.5	101.1
Air Force Reserve	59.2	62.6	66.0
DoD Total	873.4	922.9	977.0

1/ 11.8 of the increase over FY 1982 is due to the inclusion of the Navy Training and Administration of Reserves (TAR) personnel in the Selected Reserve.

Civilians. The following table compares the authorization request with actual civilian employment in past years:

Table 27
TREND IN DOD CIVILIAN MANPOWER
(End FY - 000s)

Actual				FY 1983 Budget	
FY 1964	FY 1968	FY 1980	FY 1981	FY 1982	FY 1983
1,176	1,393	991	1,019	1,034	1,035

Total DOD civilian employment in FY 1982 is programmed to increase by 15,000 over FY 1981, an increase of 44,000 over FY 1980. These increases reverse a steady decline in civilian manpower which had dropped by over 400,000 from the Vietnam peak. A further small increase in civilian employment is planned for FY 1983. The increase in civilians, since FY 1980, is needed to support the increased readiness and sustainability objectives of this Administration.

Military Student Training Loads. "Student loads" are the average number of military students and trainees of each Service and component enrolled in formal schools of the Military Services for training and education during a given year. Student loads requested for FY 1983 and 1984 are shown in the following table. The details of these training and education programs are explained in the Military Manpower Training Report for FY 1983.

Table 28

REQUESTED MILITARY TRAINING STUDENT LOADS

Active Forces	FY 83	FY 84
Army	78,311	74,650
Navy	66,930	65,635
Marine Corps	20,435	20,279
Air Force	48,769	48,018
Subtotal	214,445	208,582
Reserve Component		
Army National Guard	18,052	18,090
Army Reserve	14,579	13,292
Naval Reserve	1,000	998
Marine Corps Reserve	2,971	2,988
Air Force Reserve	1,351	1,349
Air National Guard	2,328	2,327
Subtotal	40,281	39,044
Total DOD	254,726	247,626

Legislative Proposals. In addition to the strengths and training loads requested above, I strongly urge the Congress to support the Department's legislative initiatives.

- DOD seeks Congressional support of an initiative to permit the Secretaries of Defense the flexibility to exceed authorized active duty end-strength when such increase is needed to maintain a stable personnel force. Currently, active duty personnel is the only category of defense manpower for which no authorized end-strength flexibility is provided. The 1.5% adjustment would constitute a statutory ceiling; smaller increases above the Congressionally authorized level would also be allowed at the discretion of the Service Secretary concerned.
- We are developing legislation to establish a limited dental program for military dependents covering emergency diagnostic and preventive services and 80 percent of the cost of basic restorative and prosthetic repair services.
- We are also submitting new bonus legislation to extend our current bonus authority which expires 30 September 1982.
- We further recommend the removal of the mental category restrictions on new enlistees.

- The NATO practice is to charge only incremental costs for training provided to other NATO nations--that is, only the additional costs attributable to the foreign students. US law requires DOD to charge for all direct costs. These include elements of fixed cost that DOD would incur in training its own students even if it trained no foreign students at all. Our Allies, understandably, look at these elements of cost as a forced subsidy of the US training base. DOD is proposing legislation to allow the US to join the other NATO nations in charging only incremental costs.

- In setting charges for the in-patient medical care of military personnel and dependents of other NATO nations, the NATO practice is to charge no more than host nation personnel would pay. This principle is embodied in the NATO Status of Forces Agreement of 1951. A general provision in the Defense Appropriations Acts for FY 1981 and 1982 requires DOD to charge full costs. Since NATO nations where no DOD hospitals are located reciprocate in charging the lower rates, DOD requests that NATO nations be exempted from application of the provision.

Both of these provisions act as significant irritants in US relations with our allies. They divert the attention of Defense Ministers and other senior officials from the vast array of truly important issues that confront NATO. They also discourage cooperation in training, which has a great potential for raising the ability of NATO forces to fight as a single entity. It would be very much in the US interest to modify these provisions to bring them into line with NATO practice.

- There are a number of legislative proposals being considered within DOD that will have direct beneficial effect on the recruiting, retention and readiness of the Reserve Components. Legislation to bring medical and dental benefits for Guard and Reserve members in line with those available to personnel serving on active duty for 30 days or more and those initiatives cited earlier to strengthen the Ready Reserve through both incentives and longer military service obligation are examples of these legislative proposals.

Impact Aid

- Increasing numbers of public school boards across the nation are threatening to charge military personnel for children who attend public school. We anticipate greater activity in this arena this year because impact aid, which totaled $706 million in FY 1981, has been reduced. Some school boards have served notice that tuition charges are pending or, as an alternative, redistricting may be imposed to eliminate military dependents. The Secretary of Defense remains determined that no military personnel should be forced to pay tuition fees--which could run from $2,000 to $4,000 per child per year--to send their dependents to public school. For thousands of servicemen such a turn of events, if it materialized, would wipe out the pay increases Congress just approved effective 1 October 1981.

VII. CONCLUSION

This manpower program is designed to promote the most efficient utilization of our active duty, Reserve and civilian personnel. It is firmly based on the President's assessment of our national security needs and it balances our obligation to the nation's taxpayers and to our military and civilian members. We welcome the Congress' careful scrutiny of our program and are confident that, working together, we will continue the fine progress recently begun in addressing defense manpower needs.

CIVILIAN EMPLOYEE RETENTION

Senator **Stevens**. You also have jurisdiction over civilian employees, don't you?

Dr. **Korb**. That is correct.

Senator **Stevens**. There is a noted lack in your comments this morning about any civilian employee retention problems. Aren't you having those, too?

Dr. **Korb**. We are having some in that area, Mr. Chairman. Last year, under your leadership, the raising of the pay cap helped alleviate some of the problems in that particular area, but we do have shortages, particularly in the scientific and technical areas.

Senator **Stevens**. It might be helpful if you would give us a list of the vacancies in your civilian group down to about the level 13. Can you do that?

Dr. **Korb**. Yes, we will.

Senator **Stevens**. That is for the record.

[The information follows:]

Vacancies of High-Grade Civilians

Available information indicates that Defense is having little difficulty in staffing high-grade positions, GS-13 and above. Because each of the Services decentralizes recruiting to local commands, we do not know the number of vacancies for which active recruitment is underway. We do know that the Army, Navy and Air Force together are staffed to about 95 percent of their authorized high-grade strength of over 50,000. Many of the vacant slots reflected a lack of funds or administrative causes rather than a shortage of qualified applicants. A recent DoD internal study found that the vacancy rate among laboratory scientists and engineers (without respect to grade) was also about 5 percent. This level of unfilled slots indicates a normal level of staff turnover rather than a shortage of technical personnel.

PAY AND BONUS INCREASES

Senator **Stevens**. The problem is that I am also chairman of the Civil Service Committee. I see the other side of this one, too.

You had a 15-percent pay increase last year for uniformed personnel. The civilian pay increase was held down considerably lower. This year there is every indication that civilian pay increases will be held to zero. We don't know yet what is going to happen to the military, but there were no civilian bonuses in your department, were there?

Dr. **Korb**. No, sir.

Senator **Stevens**. On what basis did you award the aviation bonus to the Marine Corps when I understand your staff recommended against it?

Dr. **Korb**. Mr. Chairman, the Congress authorized this particular bonus to the Navy and the Marine Corps. They submitted a plan to deal with the situation. They now have—due to the committee—an analysis of the impact. The committee has asked the Navy Department directly for that. It had a due date of April 1. It has not yet been forwarded.

Senator **Stevens**. You heard the GAO report that the Air Force retention is the same, no better, no worse, than either the Marine Corps or the Navy, and they didn't pay bonuses. It cost the taxpayers over $100 million on a program we thought would be used selectively to deal with, as I understand it, about 19 percent of the people involved, that would be even legitimately considered to be within the target range of the congressional mandate.

Dr. KORB. Mr. Chairman, we are waiting for that report, as you are. There is no money yet in the 1983 budget for this particular program.

Senator STEVENS. You have the request and you are supporting it now. You are committed under contract for 4 years?

Dr. KORB. That is correct, based on the 1982 pay cap.

Senator STEVENS. Haven't you committed to these people to pay bonuses for 4 years?

Dr. KORB. It is my understanding this was based on the 1982 experience, based on those who took advantage of it then.

Senator STEVENS. Don't you have to pay them every 4 years now?

Dr. KORB. No, sir.

Senator STEVENS. Do you think they are going to sign on the next time for free?

Dr. KORB. I don't know if they will. I think, as Mr. Coffey from GAO mentioned, circumstances have changed a lot since the Congress authorized that particular program. We will have to take a look at it at the end of that time. It is my understanding that they were paid this year, and circumstances may change the way we will deal with it.

As I mentioned in my testimony, we constantly evaluate all the bonus programs and we have made a net reduction of 237 multiples in the past 5 months.

If you would like to question the Navy on that, I will be more than happy to have Admiral Zech offer further comments.

MANAGEMENT GUIDANCE PROGRAM

Senator STEVENS. I will have some questions for the Navy, but I am interested in the management side.

The indications are from the GAO that the question is management, not the services but the outline of the management guidance that came from the civilian sector of the Department of Defense.

I would like to know what do you propose to do on the basis of the GAO report in connection with the furtherance of this program, if we do fund it?

Dr. KORB. What we would do is what we would do with all bonus programs. The Navy will have to come to us and submit a plan for fiscal 1983. We will evaluate that plan based upon the circumstances now existing in terms of retention and our estimate of what the impact would be on retention.

I would suspect that we would take into account what the GAO says, to see if the Navy was working in accord with that program.

Senator STEVENS. I tell you, frankly, that I don't quite understand how you expect to keep the Air Force people in very much longer if they see the Marines and Navy getting bonus pay and they are not getting the bonus pay, and yet they have had the same retention. I would expect to see a downturn in Air Force reenlistment rates unless they also get a bonus if it is an across-the-board concept.

Is there anyone you did not pay a bonus to who didn't reenlist in the Navy or the Marine Corps as a pilot?

Dr. **Korb**. The Navy Department and the Department of the Air Force were given the option as to whether they would pay the bonus, and their requests were evaluated based upon the manning conditions in that service. The Air Force finally chose not to pay an aviation bonus.

We constantly review those plans. Each service found that that met their needs last year. A major difference between flight pay and aviation bonus is that the bonus is intended to be temporary. The bonus can be reduced or eliminated as manning conditions improve.

OPTION COSTS

Senator **Stevens**. Did you compare the cost of the Air Force option with the Navy and Marine Corps option?

Dr. **Korb**. Yes, and we will furnish those for the record.

Senator **Stevens**. I wish you would do that.

[The information follows:]

Aviation Continuation Bonus Payments

The fiscal year 1981 Supplemental included funds to initiate aviation continuation bonus payments (AOCP). Congressional action resulted in establishment of a new appropriation to be used as a transfer account with payments for AOCP to be paid from the military personnel accounts after Committee approval of reprograming requests from DOD. The Departments of the Navy and Air Force submitted plans to implement the bonus shortly after required DOD guidance was promulgated.

The program was constructed to recognize both current and projected requirements of aviators with proper consideration given to the status of navigators as part of the aviation weapons system team. The Navy constructed a bonus payment based on monthly basic pay, whereas the Air Force constructed a bonus payment table based on fixed amounts, that are unaffected by pay raises. The Air Force plan provided a less lucrative incentive to the individual than did the Navy plan since the aviation community manning rates were higher in the Air Force than in the Navy. The Air Force option was estimated at $46.6 million while the Navy and Marine Corps option was estimated at $34.6 million. The Army did not plan to utilize any option.

Following extensive analysis, the final versions of the Service implementation plans were approved and on June 19, 1981, the Department submitted a reprograming request to Congress to fully fund this program. The action requested authority to transfer $55.5 million from the appropriation Special Pay for Aviation Officers to the Navy, Marine Corps and Air Force military personnel appropriations and, in addition, reprogram $25.7 million within the Military Personnel, Air Force appropriation.

The House Subcommittee on Defense Appropriations approved the request with the exception of the Air Force request to reprogram funds in excess of those appropriated for special pay for aviation officers. The Senate Subcommittee on Defense Appropriations also specifically denied the Air Force proposal to increase its bonus funding beyond amounts appropriated for this purpose.

The Air Force subsequently decided not to utilize this special bonus and, instead, chose the option of paying aviation career incentive pay—pay rates which were increased 25 percent as a result of the Military Personnel and Compensation Amendments of 1980 (Nunn-Warner) (fiscal year 1981).

PROGRAM COSTS

Senator **Stevens**. Generally, what is your feeling about that? Is not the Air Force option lower in cost than either the Marine Corps or the Navy option of making across-the-board payment, almost 90 percent coverage?

Dr. **Korb**. My understanding is that the costs are about the same for the two programs.

I think it is also important to keep in mind that you are dealing with different needs of the two services. While it is true that they are pilots, the retention rates in the Air Force were not what they should have been when this bonus program was authorized, but they were higher than those in the Department of the Navy. The Navy had the larger problem.

Senator STEVENS. The Navy retention rate before the bonus was 94 percent in 1980. The Navy retention rate in 1981 is 98 percent when you are dealing with those with between 9 and 16 years of service.

As far as I can see, the critical period for retention is between the sixth and the eighth years of aviation service, but we can't quite understand why 53 percent of the bonuses are going to those who have 9 and 16 years.

Did you ever analyze this bonus plan?

Dr. KORB. Yes, we have analyzed the plan. This will be in the report that you have directed the Navy to submit to you on this particular issue.

Senator STEVENS. I should like to know specifically how much money has been spent, taxpayers' money, to raise the continuation rate from 94 to 98 percent as far as the Navy is concerned with 9 to 16 years of aviation service. Those weren't the people we thought we were targeting. I am sure you realize that I had opposed this amendment because of its broadness at the time, but the proponents argued that it was not as broad as we said it was.

Unfortunately, the Department of Defense has proven we were right. It has been an across-the-board payment to Navy and Marine Corps pilots.

Dr. KORB. Mr. Chairman, the Navy contends that this program is vital until the deficits are corrected. While the rates may be higher, remember, they were starting from a position of shortage in pilots. They felt that this additional expenditure was justified to make up for those shortfalls.

Senator STEVENS. Let us look at the situation: Last year they got a 15-percent pay increase. The Marine pilots received that, didn't they?

Dr. KORB. Yes, Mr. Chairman.

Senator STEVENS. We took the cap off as far as the limit on pay so that those who are in the 16 years, primarily who have been in that area, I assume, and that was lifted. In addition to that, you paid them a bonus.

As I understand it, you increased it 4 percent in terms of retention rate?

Dr. KORB. In that one particular category.

Senator STEVENS. We find 53 percent of the bonuses were paid to that category to get a 4-percent increase in retention, when there were two other factors at work in their retention, anyway.

Dr. KORB. Mr. Chairman, only one of the factors was really at work here. It is very doubtful that a military person would be affected by the lifting of the pay cap. They did get the increase. Remember, these bonuses were paid——

Senator STEVENS. The pay cap affected people down to grade 14. What is your equivalent to grade 14?

Dr. KORB. It only affected people in the general-officer category in the military. Remember, military pay is not all basic pay; they get a quarters allowance and a subsistence allowance. But the point is that the pay raise did not go into effect until October. The bonuses were paid before that. A lot of the bonuses were paid last summer.

This was a program that was authorized for fiscal 1981 and the funds were released last summer.

AVIATION BONUS INCREASE

Senator STEVENS. Tell me about the increase in 1982. I understand that the aviation bonus was increased in March 1982. We had an average continuation rate of 94 percent for Navy pilots, 96 percent for Naval flight officers, 91 percent for Marine Corps pilots, 90 percent for Marine flight officers, yet the Department authorized an increase in the bonus in March of 1982. Can you explain that to me?

Dr. KORB. I would prefer to let the Navy explain it.

Senator STEVENS. You approved it, didn't you?

Dr. KORB. We have approved it based on the fact that the money was available and the Navy felt that they needed it to make up for the shortfalls that were already existing.

Senator STEVENS. The GAO report indicates that 400 bonuses have been awarded to aviation personnel with 16 years of service, that the bonuses have been as high as $38,000 for people who are 4 years away from a very lucrative retirement at 20 years.

I cannot believe that you did not understand that that was not the congressional intent, to pay a bonus for reenlistment to someone 4 years away from retirement.

Dr. KORB. Mr. Chairman, as the GAO indicated, it is based on years of aviation service and the person might have previous service that allowed him to have more years of service than aviation service.

Senator STEVENS. Why didn't you correct that? There was nothing in the congressional mandate that you pay anyone a bonus. You were authorized to pay it. You were not mandated to pay anybody. I think your administration of this has led to the point where, unfortunately, I am right, that the bonus plan doen't work. We warned it would be abused. It has been abused. It is used like the SES was. In the SES situation we authorized bonuses to outstanding people in the SES. It worked out so that roughly one-third to one-half of the people in each unit got the bonus one year and they rotated; the next year the other people got it.

The whole congressional intent was lost. Since then, I guess you know it has been restricted now severely, twice?

Dr. KORB. I understand that, Mr. Chairman.

PAY RAISES

Senator STEVENS. Let us go to pay raises.

I have to say it frustrates me to see a great proposal abused. We did not oppose the bonuses entirely. This subcommittee wanted to see them handled with some discretion so that they would be useful over a long period.

In the budget that is before the Senate now, there is no pay raise for civilians. As I indicated, there has not been a final decision yet made on the military pay raise. Have you any indication what the effect of that pay freeze would be on civilian personnel retention and military retention?

Dr. KORB. We don't have an estimate because we don't know the final figure on the civilians.

As I mentioned before, the most significant thing in terms of the area of civilians was lifting the pay cap last year. That dealt with the problem we were having in keeping high-grade talent that was bumping up against the ceiling.

We have shortages in selected areas which we are working on now in terms of particular ways to deal with that through incentive pay and bonuses.

Overall, the situation between the military and the civilian is a lot different. The military does not have the same number of supply as the civilian does. The civilian has not begun experiencing, except in particular areas, severe retention problems.

FORCE REDUCTIONS

Senator STEVENS. I am going to yield to my colleague. We have a rollcall vote going on.

Dr. Korb, the other committee, the Armed Services Committee, is recommending severe reductions in manpower in order to meet the reduction in the budget. I don't know if you know that. They recommended force reduction.

Is it inconsistent, in your opinion, to be offering incentives for retention and bonuses for retention, and at the same time be looking at force reduction in order to balance the budget, because we have all these other pay things added on to the pay side of the budget?

If you took off the 15 percent and took off the bonuses and took off some of the other official increases, could we maintain the same manpower?

Dr. KORB. We did not recommend force manpower reductions. We recommended force structure reductions. They are different. For example, the recommendation we made to the Congress was to retire 22 ships early but to spread that manpower around to deal with shortages in the rest of the fleet.

We did not recommend manpower reductions. In fact, our manpower levels are actually increasing, as I mentioned. There is a difference between the two.

Now the Senate Armed Services Committee took a different tack. They did not take the force structure reduction but took a manpower reduction. I would agree with you that that is inconsistent. Our feeling is that we ought to man whatever size force structure that we can afford to the fullest extent possible.

Senator STEVENS. We will go vote and come back. Excuse us, please.

We will stand in recess.

[Recess.]

Senator STEVENS. Let us come back to order.

Senator Rudman?

Senator RUDMAN. I am going to ask you one question. I think Senator Stevens has covered this issue completely.

I wonder if we might get down to the essence of what this discussion has been up to now. I will ask a very simple question and I would like a very simple answer.

CONTINUATION BONUS

The language of the statute says this, and I am quoting:

> The continuation bonus shall be used selectively where shortages of officers qualified in critical aviation specialties exist or are projected, and shall be limited to critical retention points where the bonus can be expected to affect retention behavior.

This is a very simple question: Do you believe that the letter and the spirit of that statutory language has been complied with in light of the evidence that has been before this subcommittee this morning?

Dr. Korb. Yes, I do.

Senator Rudman. Well, I do not. I do not think, frankly, in light of the tables that we have in front of us, that you can possibly make that answer.

The reason I say that is that the tables indicate that the overwhelming number of people in these categories received the bonus; is that true?

Dr. Korb. That is correct.

Senator Rudman. It is also true, is it not, that a number of people within 3 or 4 years of retirement received these bonuses?

Dr. Korb. In certain cases that happened because of an anomaly of the way in which the law was passed. The law dealt with years of flying; it did not take into account the fact that some people had other duty before that.

Senator Rudman. I understand the anomaly in the law. In light of the fact that (a) you agree with me that almost everyone eligible got the bonus and (b) some of the people got it within 4 years of retirement, how do you square that with your answer to the previous question that it was used selectively?

Dr. Korb. I think I can explain that. We are talking here about the Navy Department. The Navy and the Marine Corps had a servere shortage of pilots. Even if you get only a marginal increase of people in a particular category, the cost of retraining that individual is more than the cost of the bonus. You were starting with a shortage and the shortage was in the O-3 and O-5 categories and you paid the majority of the bonuses there.

I do agree with you, Senator, that we did make a mistake in not taking into account the fact that those people had previous service. We were looking at them only in terms of aviation experience and we did expect them to stay on beyond the normal 20 years.

Even if you only retained 12, 13, 15, 20 people, the cost of training, at about $800,000, will show that it becomes cost effective.

Senator, if I might add, my understanding is that we sent a letter to the committee explaining what we were going to do. We did not tell them about the raise last March, but last summer I remember writing to the Appropriations Committees of both houses, explaining what we were doing. We were also directed by the House not to have any pay inversion so that you had people of junior rank making more on account of the bonus.

We were trying, I think to the extent possible, to comply with both the spirit and the letter of the law.

Senator RUDMAN. Of course, this whole area involves supply and demand.

Dr. KORB. That is correct.

Senator RUDMAN. This chart attached to the GAO report, and the testimony this morning, really tell a great deal about this. You start here in 1977 with the airline pilot hiring, it reaches a peak in mid-1978, drops in 1980 and then very slowly is on the upswing part of that year and is on the way down again.

I just have to say to you, as I read that statue and I look at the performance, I do not believe that the Department of Defense, the Navy and the Marine Corps complied with either the letter or the spirit of that statute.

Dr. KORB. Senator, again if I can elaborate, remember that this program was designed a while ago. It takes a long time to get through the Congress, and last summer we submitted to the Congress exactly what we were going to do with this situation. Obviously, supply and demand change; you can't turn the programs on and off that quickly.

Remember that we had a shortage—a very severe shortage—in the Navy and the Marine Corps, and there still is a shortage. Given the cost of training new people to make up for that shortage, it is still cost effective, even in those areas where there is only a marginal increase—but not as cost effective as we would like.

The only thing, I think, in retrospect, is that we should have caught earlier the years of service versus the years of aviation experience. Other than that, I don't have any regrets in taking a look at that program because of the shortage we experienced at the same time we were expanding the force.

I think that keeping people even in those marginal areas more than justifies the cost to get the few extra people.

Senator RUDMAN. The Air Force did not pay a thing.

I want to pick up on one point: Obviously, the intention of this law was to retain those people in their early years of service, many of them who have young families who look at the attraction of the airlines and the great gap that existed during those first maybe 6 to 10 to 12 years; but frankly I know a lot of Navy, Marine and Air Force pilots who are personal friends of mine and I talk about these things with them. Most of these people, after having 12 or 15 years invested in the service, 7 or 8 years from retirement, are not about to get out of the service unless they receive a tremendous offer.

You people just applied this across the board. Nobody could argue if you applied it heavily to the first decade of their service. We understand that; that was the purpose of it. I frankly think that was abused. Maybe that is too strong a word. I don't think it was efficaciously managed.

Dr. KORB. Again, the way in which we applied it was years of aviation service; it did not take into account that the person had previous experience. Normally that does not occur. So you had some widely publicized cases of people who haven't had experience in the nonaviation portion, 6 or 8 years, which were years of service, but had service at the 16-year point.

As you know, sometimes when programs are designed one does not take into account all the things one should, but we are correcting that particular thing right now.

Senator **Rudman**. Thank you, Mr. Chairman.

ROTC

Senator **Stevens**. Did you deal with the ROTC question, too?

Dr. **Korb**. That is correct.

Senator **Stevens**. Does the student still obligate himself to enlist if he takes an ROTC scholarship?

Dr. **Korb**. My understanding, Mr. Chairman, is that it depends on how long the individual uses that. The individual has a choice either of paying back the money or taking some sort of obligated service.

Senator **Stevens**. Do we have any figures on how much is owed the Government on unfulfilled ROTC scholarships?

Dr. **Korb**. We can furnish those for the record. We do have those figures.

[The information follows:]

Unfulfilled ROTC Scholarships

Any amounts owed the Government on unfulfilled scholarships would accrue after the enactment of Public Law 96-357. This law requires obligated ROTC scholarship students to fulfill their military commitment or repay the cost of their education to the Government. Since the law only went into effect this past fall, no debt has accrued.

Senator **Stevens**. Generally, tell Senator Rudman and me what is the situation. Are they fulfilling the scholarships and enlisting or are they opting to pay? Is it an effective inducement to enlist?

Dr. **Korb**. My underestanding is that it is. Our ability to collect is generally better than most other agencies of the Federal Government who have money owed to them for various programs. The obligation, for example, in NROTC, starts in the third year. You don't incur an obligation unless you go into the third year very similar to the service academies.

Senator **Stevens**. What do you do if you have 2 years and you don't pursue it in the third year, do you owe for the first 2 years?

Dr. **Korb**. You do not.

Senator **Stevens**. We will look forward to getting those figures. A question has been raised about the ability of the services to enforce the obligation as opposed to collecting the funds that are due, and what it is costing under the current circumstances. We look forward to getting that information.

SUBSISTENCE ALLOWANCES

Last year we authorized enlisted personnel to receive basic allowance for subsistance, that is, cash allowance for food, and per diem allowance for food simultaneously while on temporary duty. Officers were already entitled to that.

Now, the defense appropriations bill reimburses enlisted personnel only once for food. I am told that the Department still supports the double subsistence payment concept for equity between enlisted personnel and officers, but that you have not made any formal request for 1983; is that right?

Dr. **Korb**. We have requested that the general provision be eliminated in fiscal 1983 so that we have the same treatment for both officers and enlisted.

Senator **Stevens**. If you eliminate the authorization we gave you last year for equity, how do you have equity?

Dr. **Korb**. What we proposed, Senator, is that the restriction that the enlisted people cannot receive the BAS while in travel status be eliminated so they can receive both, as officers do.

Senator **Stevens**. We have some additional questions. I will submit these to you on the BAS. I want to make sure we understand that. The reenlistment bonus, I understand, is paid 50 percent up front and 50 percent in equal increments over the length of the enlistment. Does that apply to aviation bonuses, too?

Dr. **Korb**. No, sir.

Senator **Stevens**. What provision is going to be made if these people do leave the service during the period of time that they agreed to stay?

Dr. **Korb**. I don't think they will be allowed to leave voluntarily. It would be for a medical reason or some other reason.

Senator **Stevens**. That is what I mean. Suppose they leave for other reasons? I know once they are reenlisted they are in, but suppose they get out for one reason or another?

Dr. **Korb**. We have no plans to ask for that money back because they would not get our unless it would be essentially for the good of the Government.

Senator **Stevens**. What effect has the general policy on other bonuses, the reenlistment bonuses, had as far as outlays? Do you have any figures as to what has happened with the reenlistment bonus under the new policy, 50 percent now and 50 percent in equal installments?

Dr. **Korb**. The first year it would be reduced. You would eventually catch up because in subsequent years you would be paying part of the money for people who had reenlisted in fiscal year 1983. By the end of about the fourth year there would be very little impact on outlays.

Senator **Stevens**. We have some questions here on the 1982 supplemental which we will submit to you and we would like your prompt response.

INCREASE IN HOUSEHOLD GOODS WEIGHT ALLOWANCE

I understand that there is $58.2 million requested for increased household goods weight allowance for military personnel. The current maximum is 13,500 pounds. That would increase to 16,000 pounds and the weight allowance would be increased up to 2,000 pounds. Why is that really necessary? What has brought about that increase?

Dr. **Korb**. You mean in terms of the weight allowance?

Senator **Stevens**. Yes. This is a DOD initiative to increase the weight allowance?

Dr. **Korb**. Yes, that is correct. Speaking to people in the force, we find out, first of all, that on the mileage allowance they are still paying a lot of money out of their own pockets when they move. The 13 cents to 16 cents is more in keeping with what private industry does.

In terms of household goods allowances, we find that people generally have more than that when they move. We feel that this is a good way to remove an irritant which—for a comparatively small amount of money—drives the person out of the service.

As you know, before this committee and several other committees acted a couple of years ago, military people were sometimes spending $1,000 and $2,000 out of their own pockets. This allowance increase we have proposed is primarily for junior officers and senior enlisted. The proposed maximum weight, for example, for O-10 and O-9, in contrast is not changed at all by this policy.

Senator STEVENS. I just wonder sometimes if some of these things could not have been held up until the days when we don't have the increments of 15 percent pay increases, building additional submarines, additional carriers, additional aircraft, additional airlift, and additional sealift. Why do they all have to happen at the same time? I don't think anyone has prioritized this budget as far as this budget is concernced this year.

There is so much increase in every category that it is difficult for us who have to review it to comprehend.

Dr. KORB. I understand your concern, Mr. Chairman. If you take a look at this particular issue, we asked last year that it be raised to 16 cents per mile. That was not approved.

Senator STEVENS. That was because we had two independent analyses on operating automobiles that showed 10 cents is a fair reimbursement under the circumstances, that you also have your household goods paid for and you get allowances for change of duty station on top of that.

If you look at the total pay package that is involved in change of duty station for the military compared to other areas of our economy, it really isn't that bad. Right now, to insist on these increases when we are forced again to make force reductions in order to cut down the budget because of the budget process, I think that you unfairly approach the committee in terms of prioritizing the budget in your area.

Does not something like 70 percent of all military expenditures come through your area?

Dr. KORB. That is correct.

Senator STEVENS. Have you established a priority for this? You have asked us for the same things we turned down time and time before because we didn't have the money. If we didn't have the money before, how in the world do we have it this year?

Dr. KORB. As I mentioned earlier, Mr. Chairman, our preference would be that if we could not afford to fund fully whatever the force structure level is, we would take the force structure cut rather than slight our people. In this particular area I think we are very much out of line with what comparative people are paid in private industry. In fact, the total household moving package compared to private industry for military people in the Department of Defense, I think, would show they come out not nearly as well.

This area really had not changed for a good 15 to 20 years before the Congress and the American people become concerned about the standard of living of military people.

What we are trying to do is simply catch up in an area we have long neglected. We would put our highest priority on readiness, and that means keeping qualified people. So if we were asked to prioritize, this would have very high priority.

Senator STEVENS. There is a $38.7 million increase involved on top of the $47.6 million for the military members' mileage. There is a request to increase the mileage allowance for dependents over the age of 12 from 7 cents to 10 cents. This is mileage. I assume they are riding in the same car.

In addition to that, for those under 12 the allowance would double from 3.5 cents to 7 cents per mile. You know, I have six kids and whenever we travel we travel in the same car. I don't understand, again, prioritizing these items in terms of these allowances, do they all have to come at the same time, Mr. Korb?

Dr. KORB. I think if you take a look, there are a lot of personnel inequities we would like to deal with that we have not. We feel, based on what we hear from people as to reasons why they leave the service and what we find when we go around speaking to people on the bases, that this is a very, very key one. We still find many of our military people have to pay out of their own pockets to move.

Remember that the mileage or per diem rate here deals with the fact that people have to stay in motels, for example, when they travel, and many times you have to pay additionally for extra members of your family. The per diem includes not just driving the car; many families have more than one car. Since they are moving, they have to get both cars there.

Senator STEVENS. Don't they get per diem, too, in addition to this? The members get per diem, don't they?

Dr. KORB. I would have to check.

[The information follows:]

MEMBER AND DEPENDENTS PCS ALLOWANCE

Military members receive a monetary allowance in lieu of transportation (MALT) of 13.0 cents per mile plus a per diem allowance of $50 per day. Dependents do not receive a per diem allowance. A mileage allowance of 3.5 cents per mile is provided for dependents aged 2 to 12 and 7.0 cents for dependents 12 years and over. The dependent mileage allowance provides for food, lodging and any additional travel expenses during a permanent change of station travel move.

MILITARY/CIVILIAN PER DIEM

Mr. CONTE. The members get per diem. The dependents have to rely on the mileage to make up for the cost of the move. The dependents do not get per diem.

Senator STEVENS. It might interest you to know that congressional employees don't get anything for their kids or anything else. When they move they move and they don't get mileage; they don't even get per diem for themselves. What do the civilians get when they move?

Dr. KORB. Our civilians, Mr. Chairman, get per diem for the member, and they get mileage for the dependents, too.

Senator **Stevens**. On the same scale? Does this request deal with civilians as well as military?

Dr. **Korb**. No. This is just for military people.

Senator **Stevens**. Give us a chart that shows the comparison between a military person moving for the Department of Defense and a civilian person moving for the the Department of Defense. My impression from the other committee which I chair is that again you have severe problems of attracting people to the civilian sector of the the Department of Defense and keeping them. They may come in but they are not staying in terms of midcareer decision. They don't have early retirement at 20 years; they have to stay for the full 30. They don't have a lot of the things involved here in the military which will exacerbate the problem of acquiring the civilian people we need in the Department of Defense.

I am not against the armed services and uniformed personnel, but I think you are getting an inequity built into this pay schedule that will bring us demands in the other committee for changes for civilians, particularly for the Department of Defense civilians. That will really tilt the civil service if we have to pay more money to the civilians in the Department of Defense than in the other departments because the uniformed personnel have circumstances that are different from the civilians in the other departments.

[The information follows:]

COMPARING PCS BENEFITS

[Private Sector Entitlements Are Typical—Not Universal]

Benefit	Private sector [1]	General Schedule Federal employees	Military
Househunting expense	X	[2]	
Moving expense (household goods)	X	X	X
Real estate expense:			
Selling cost	X	[3]	
Lease cancellation	X	X	
Guarantee against loss	X		
New home purchase company loan	X		
New home closing cost	X	[4]	
Mortgage rate differential	X		
Supplemental allowance	X	X	[5]
Allowance for increased tax liability	X		

[1] Estimated costs of a "normal" transfer at $8,000 to $12,000 depending on employee's housing situation.

[2] One round trip for employee and spouse not to exceed 6 days.

[3] 10 percent of real estate selling price, not to exceed $8,000.

[4] 5 percent of real estate purchase price, not to exceed $4,000.

[5] 1 month basic allowance for quarters as a dislocation allowance (DLA).

Sources: "Elements of Corporate Relocation Policies," The Conference Board, 1977. "Employee Relocation Policies Among Major US Corporations," Merrill Lynch Relocation Management, Inc. 1980.

CIVILIAN MOVING PACKAGE

Dr. **Korb**. Civilians right now have a more generous moving package than the military. For example, they get the cost of realtor's fees and closing costs paid, where military people cannot. They get the cost of house hunting trips, and the amount of time they could go ahead and stay at motels until very recently was more advantageous for civilians than military personnel.

Senator STEVENS. It isn't any longer.

Dr. KORB. I would also like to make a point that when civilians transfer, in most cases they do so voluntarily, whereas military people must go where they are told if they want to stay in the service.

Senator STEVENS. You are justifying the increase from 13 cents to 16 cents on the basis of ownership cost, depreciation, license fees, tax cost, in order to go from 13 to 16 cents on your reimbursement for the military member's mileage. Again, I understand the justification but I don't know anyone else who gets that in Government service; do you?

Dr. KORB. We can furnish the exact figures for the record for civilians, because we don't set the policy government-wide for civilians. My understanding is that it is very similar in terms of the mileage allowance.

Senator STEVENS. It is based on automobile ownership as opposed to automobile use. This is depreciation, license and tax cost; is that the justification?

Dr. KORB. That is correct.

Senator STEVENS. I don't know of any other mileage fee that is justified on that basis. You can correct me if I am wrong. I will be happy to be corrected.

PCS CHANGES

Now, I asked for an estimate of what the effect would be of changing the rotational move, the permanent change of station, and I was told it was $986 million on an 8-month consideration, $740 million to be saved by reducing moves for 6 months. Can you tell me—again back to the budget problem and it is indicated we have to save some additional moneys somewhere—are there any other alternatives that would save substantial moneys without cutting force structure and dealing with permanent change of station? Have you analyzed this to determine if there is anything else that might be done to reduce the cost? There is about a $17 million cost for permanent change of station, we are told, this year.

Dr. KORB. Mr. Chairman, as part of the package we submitted to the Senate Armed Services Committee, we did put in reductions in operational rotational moves; we did put in funds for that. I can furnish them for you. In other words, we offered to reduce the moves.

Senator STEVENS. Have you furnished this committee with that?

COST REDUCTIONS IN ROTATIONAL MOVES

Dr. KORB. I can furnish this committee with that. I can read it to you right now, if you would like, for each of the services.

For example, we offered to reduce the Army budget by $77 million for rotational moves; the Navy and the Marine Corps by $78 million; and Air Force by $70 million.

Senator STEVENS. Didn't we reduce that in 1982 to $230 million? What would your $230 million do, how many months will it delay the rotational moves—any at all?

Dr. **Korb**. The Army is about 6 months. I assume it would be about the same for the other Services. We can supply that exactly for the record.

[The information follows:]

OPERATIONAL/ROTATIONAL MOVES

[Dollars in millions]

Service	Dollar reduction	Days delay [1]
Army	$77	40
Navy	57	62
Marine Corps	21	56
Air Force	70	39
Total	225	

[1] If all operational and rotational moves were delayed in fiscal year 1983 by the dollar amounts shown. Reductions directed to specific geographical locations would increase the number of days delay for those members affected.

IMPORT OF ROTATIONAL MOVES ON BUDGET

Senator **Stevens**. We had a $740 million figure. When we asked DOD if we changed it for 6 months, they gave us a figure of $740 million. Now, the $230 million is the one that you have indicated to the Armed Services Committee would be for the same amount of time. Unfortunately, or fortunately, whichever way you want to call it, the Armed Services Committees' reduction of $5 billion is an effective reduction of $5 billion according to the Budget Committee.

We are going to be told to make it effective, as we understood it yesterday, we are going to make certain that we do it in a way that does not impair morale and have reduced readiness. So, I would like to have some figures in terms of the rotational moves and whether you draw any distinction between overseas rotational moves and the domestic rotational moves, what impact they have as far as the budget is concerned.

Dr. **Korb**. Mr. Chairman, we can supply you the figures that went into the numbers I gave you and what the exact impact would be on each of the services.

[The information follows:]

Operational/Rotational Moves

Operational travel involves moves to and from permanent duty stations located within the United States or moves to and from permanent duty stations located within an overseas area when no transoceanic travel is involved. Rotational travel covers movements to and from permanent duty stations overseas when transoceanic travel is involved. Reductions directed to specific geographical locations would increase the number of days delay for those members affected.

[Dollars in millions]

Service	Dollar reduction	Days delay [1]
Army	$77	40
Navy	57	62
Marine Corps	21	56
Air Force	70	39

Service	Dollar reduction	Days delay [1]
Total	$225	

[1] If all operational and rotational moves were delayed in fiscal year 1983 by the dollar amounts shown.

INTRODUCTION OF UNIFORMED PERSONNEL

Senator STEVENS. The Army, Marine Corps, Navy, and Air Force have statements here. We have them in the record. I would like to inquire from the uniformed personnel if they wish to answer any of the questions I have given to Mr. Korb.

Admiral Zech, General Bronars and General Isoue, would you like to come up now and address some of these questions, and General Thurman, too?

DEPARTMENT OF THE NAVY

STATEMENT OF VICE ADM. LANDO W. ZECH, JR.

Admiral ZECH. Mr. Chairman, on the subject of the aviation officer continuation bonus, I would just like to summarize the Navy's views on that bonus program.

I believe the Navy has complied with the letter as well as the spirit of the congressional directive. I believe the program is very cost-effective; it is one of the most cost-effective programs that we have in the Navy at the moment.

For example, in 1981 the program cost the Navy $26.4 million. We believe we saved potential training costs in excess of $427 million with the money that was given to us to retain those aviators in 1981.

COST OF TRAINING NEW AVIATORS

Senator RUDMAN. Could you explain those numbers for us, Admiral? I would like to understand where they come from.

Admiral ZECH. Yes, sir. It would cost us over $400 million to train the number of aviators that we figure we would lose if we did not have the program. The program itself cost $27 million. We anticipated the program would retain 358 aviators. We actually retained 599.

The program cost $26.4 million for the Navy. To train additional aviators to replace those that we expect to lose would have cost us in excess of $400 million.

There are anomalies, as Dr. Korb has pointed out, in the program caused by using length of aviation service for bonus computation. We would agree with that part of the GAO report, and we have been staffing initiatives to change the computation from years of aviation service to years of service.

I would like to point out that although there are anomalies which should be changed, there were very, very few people involved, but they did get considerable publicity. We agree that it should be changed.

The statement—or at least the implication—was made that it was not important or necessary to give the bonus beyond the 8-year or perhaps the 10-year point. I would disagree with that. Our figures show that it is extremely cost-effective at the 6- to 8- to 10-year point. It is also cost-effective beyond that point.

You can say that it is less cost-effective than earlier and that is true, but it is still cost-effective even during the later years.

The figures that were used indicating 90 percent continuation refer to our career force. These are experienced people we hope to retain in our Navy. On the other hand, our retention figures refer to the people who are just completing their obligated service and are junior people at the 6- to 7-year point. The retention figures were declining to roughly 30 percent before the bonus went into effect.

We feel the bonus is indeed cost-effective. We believe we need to continue it. We believe the shortage we have targeted is our critical shortage of aviation officers in the ranks of lieutenant, lieutenant commander and commander with 6 to 15 years of service. These are our shortages, and they are what we targeted.

We believe we have complied with the letter and the spirit of the law. We are still short, and we need the bonus continued: therefore, my view is that the bonus program is cost effective. It is an important program to us, and if we are to continue to retain our aviators, we need the program continued.

[The prepared statement of Admiral Zech follows:]

PREPARED STATEMENT OF VICE ADM. LANDO W. ZECH, JR., USN

DEPUTY CHIEF OF NAVAL OPERATIONS
MANPOWER, PERSONNEL AND TRAINING

I. INTRODUCTION

Mr. Chairman, I appreciate the opportunity to appear before you today to discuss military compensation. More than any other factor, it has been the past compensation policies and initiatives which have contributed to our success or our failure in attracting and retaining the manpower needed to man our Navy at a high state of readiness. The impact of the FY 1981 and FY 1982 compensation improvements has been striking. The personnel hemorrhage that reached its height in 1980 has been arrested. Although the serious petty officer shortage will not be fully resolved for several years, virtually all our indicators, including recruiting, retention and personnel readiness, are now pointing in the right direction. Retention rates have increased dramatically. Due to this increased retention, the total number of petty officers in the Navy increased by 5,000 in FY 1981. Also during the past fiscal year, we had 2,185 fewer members request transfer to the fleet reserve, and of particular importance to fleet readiness, 1,138 more sailors requested duty at sea as a reenlistment incentive.

Although the continuing sluggish economy has contributed in considerable increases to our recruiting and retention sources, I believe the recent compensation initiatives have been the key ingredient to this success story.

I firmly believe that it is essential to maintain military pay comparability in order to recruit and retain the required manpower for our Navy.

II. PAY COMPARABILITY

Recent initiatives have restored the level of military compensation to rough comparability with wages and salaries in the private sector, but have also instilled a new confidence in our personnel in the commitment of the congress and the administration to support our military forces. This new confidence has had a very positive effect on retention of our career force and readiness of the fleet. It is important that this confidence be maintained.

The competition for manpower in the all-volunteer force is fueled by wage growth in the private sector. If military pay is allowed to deteriorate below pay opportunities in the private sector, as happened in the late 1970's when pay increases were capped on three occassions, and a portion of the raise was reallocated to quarters allowance on two occassions, there is no reason to expect that the result will be any different from the results experienced then. We lost thousands of talented careerists, and were totally unable to meet our accession and retention goals - despite the application of bonus programs. Today, we can ill afford the larger price tag that will be exacted for training replacements for the skilled, experienced people who will leave should we again lose our ability to compete with the private sector.

Another area of concern is maintaining the present value of special and incentive pay entitlements. The amount of most of these pays are fixed by law. If these special and incentive pay programs are to remain effective, they simply must maintain their value as an inducement to undertake the duty for which they were designed.

As an example, in 1949, sea pay ranged from $8 to $22.50 per month and was equal to approximately 10 percent of enlisted basic pay. Prior to the recent sea pay improvements the value of sea pay had lost its effectiveness to attract members to sea duty. We would support a mechanism that would insure that these entitlements retain their value over time.

A. SELECTIVE REENLISTMENT BONUS (SRB) PROGRAM.

The SRB Program is the Navy's most flexible and cost effective tool to retain needed petty officers in critical skills. The FY 1983 budget contains $279.5 million for reenlistment bonuses of which $240.7 million are for new awards and $38.9 million are for anniversary payments. This program will yield an additional 2000 experienced petty officers over the 1982 program and is essential to enable us to provide the experienced, critical-skill petty officer base required to man the fleet of the late 1980's. While Navy's overall retention program will target the aggregate petty officer shortages, the SRB portion of that program is the best method to apply scarce resources to those selected critical ratings where our most severe shortages exist.

To ensure that our dollars are applied in a cost effective manner, the Navy continually reviews its management techniques to more effectively allocate resources in this program. As a result of our FY 1982 mid-year review, Navy decreased award levels in 21 ratings and reallocated those funds into 12 ratings with more severe inventory shortages. We also reduced three skills to 1/2 award levels to evaluate the retention yield in relation to cost savings.

Associated with attempts to achieve SRB cost savings is the shift from lump sum to 50% lump sum and anniversary payments. Although the near-term cost savings associated with this method of payment are obvious, a Center for Naval Analysis Study points out that, for a given award level, the savings over the term of enlistment are zero and that the effectiveness of the bonus as a retention tool is significantly reduced. In FY 1982 alone we expect to lose over 400 reenlistments as a result of this change, and FY 1983 projections are 600 petty officers lower than under the previous payment system. Of critical importance is that these losses represent hundreds of trained, experienced petty officers in ratings where we are already short of requirements. The consequence is an adverse effect on fleet readiness.

B. ENLISTMENT BONUS

In addition to the selective reenlistment bonus program, Navy also has a limited enlistment bonus program, which is an effective tool for targeting Navy accession needs into ratings with chronically low volunteer levels or those with extemely high technical skill entry qualifications. These skills include nuclear field trainees, cryptological specialists, machinist mates and boiler technicians. With the bonus and additional training received we require additional obligated service e.g., nuclear field-six years. The success Navy has experienced in meeting the initial accession goals in these and other eligible skills is directly attributable to the enlistment bonus incentive as well as the special training. The FY 1983 budget contains $16.5 million for the enlistment bonus program. These funds are essential to provide accessions of the proper quality to keep pace with Navy's overall manpower expansion.

C. AVIATION OFFICER CONTINUATION PAY (AOCP)

The Navy also strongly supports the extension of the aviation bonus beyond its current 30 September 1982 termination date.

From fiscal year 1977 to 1980, Navy experienced a severe loss of mid-grade 0-3 to 0-5 aviators. Among mid-grade pilots, shortages increased more than 200 percent, to a total of over 2000, between FY 1977 and FY 1979. Despite constant inventory requirements this mid-grade inventory decline is a direct reflection of pilot retention, which fell from 46 percent in FY 1978 to 30 percent in FY 1980.

The Aviation Bonus (AOCP) was developed as a supplement to Flight Pay (ACIP) in order to correct current and projected shortages of career officers in aviation specialities. The bonus payment plan concentrated on aviators in the retention-critical sixth through ninth years of aviation service. Payment is based on multiples of basic pay with the multiples highest in the sixth through ninth years, then gradually decreasing through the fifteenth year termination point for bonus eligibility. Declining multiples beyond the ninth year recognize the decreased requirement for a bonus payment as seniority increases and at the same time, preculde pay inversions in the tenth through fifteenth year window which would result from an abrupt termination of the bonus.

Implemented in July 1981, the AOCP program was instrumental in reducing the total aviation mid-grade officer shortfall by 352 aviators by the end of FY 1981, despite a concomitant increase in aviator requirements of over 300. Since implementation of the bonus, pilot retention has improved dramatically: 42 percent in FY 1981 and a projection of 45 percent for FY 1982.

A marginal cost analysis of the funds expended in implementation of the AOCP program demonstrates the program's cost effectiveness. Navy projected a gain of 298 pilots and 60 NFOs in FY 1981 as a result of the bonus. Actual gains from the bonus between 1 July and 30 September 1981 were 489 pilots and 110 NFOs. FY 1981 training costs were $759K per student pilot and $508K per student NFO. The replacement value of the 489 pilots and 110 NFOs is $427.1M compared to a FY 1981 bonus program cost of only $26.4 million. While the average pilot training cost of $759K represents a significant dollar investment, the replacement value, in terms of combat readiness, or a fleet experienced aviator with over six years of aviation service is unquantifiable.

As a result of the improved retention of fleet experienced aviators and the attainment of programmed training rates, we forecast the complete recovery from the pilot manning deficit in fiscal year 1989. The NFO deficit will be eliminated in FY 1984 if the current bonus authority is retained.

III. BUDGET COMPENSATION INITIATIVES

The FY 1983 budget includes several initiatives to reimburse members for expenses they incur. The following paragraphs provide additional information on these initiatives.

A. MONETARY ALLOWANCE IN LIEU OF TRANSPORTATION (MALT) UPDATE

The budget requests $15.1 million to increase the MALT for members from $.13 to $.16 per mile and $5.1 million to increase dependents MALT rates from $.07 to $.10 per mile for those 12 years of age and older and $.035 to $.07 for dependents from 2 to 11 years old. These increases will enable us to more adequately reimburse members for the actual costs incurred when moving their families to a new duty station.

The MALT rate requested for the member represents the actual cost of operating a privately owned vehicle using the guidance on allowable expenses provided in the FY 1982 HAC report on the defense appropriations bill. Runzheimer and Co., a highly respected research firm, was used as a source of data for the calculations.

Dependents MALT is intended to provide reimbursement for the cost of subsistence, additional lodging expense and incidental expenses incurred on behalf of dependents. Members are incurring costs of $20 for meals, $8 for incremental lodging and $2 for incidentals which total $30 per day for each adult dependent. This equates to a dependent MALT of about $.10 per mile. Approximately $21 per day or $.07 per mile is incurred by a member for the travel cost of dependents under 12 years of age.

B. INCREASE IN HOUSEHOLD GOODS WEIGHT ALLOWANCE

Currently, over 20 percent of our E-7 and above enlisted personnel, and W-2 and O-4 and above officer personnel are required to pay for shipping household goods in excess of their weight allowance when executing PCS orders. The DOD appropriations act precludes prescribing PCS household goods weight allowances in excess of 13,500 pounds. As a result, a significant number of members are exceeding the administratively determined weight ceilings and are subsidizing the shipment of HHG for government directed moves. The FY 1983 budget contains $12.2 million to adjust the HHG weight allowances and reduce the numbers of service members being forced to pay for a portion of their HHG shipment.

C. BASIC ALLOWANCE FOR SUBSISTENCE (BAS) FOR CAREERISTS

Currently, enlisted personnel only receive BAS when no government dining facility is available, under certain TAD conditions, or when they are authorized to subsist separately from the mess. Normally, enlisted members are subsisted in kind at enlisted dining facilities (EDF) ashore and afloat. These members are often financially penalized because they cannot or do not eat all their meals at the EDF, and must pay for meals consumed elsewhere without receiving a subsistence allowance. The result is the member has paid twice for one meal, which serves as a major irritant to our career force. To alleviate this disincentive, the budget contains $32.2 million which would allow E-5 and above to receive BAS at any time they are stationed ashore or when stationed afloat and in their homeport.

IV. FY 1982 SUPPLEMENTAL.

The Navy has submitted both pay and program supplemental budget requests in order to provide sufficient funds for the remainder of FY 1982.

A. PAY SUPPLEMENTAL - $1,073,144.

The pay supplemental is to provide for the 14.3 percent targeted pay raise enacted by the uniformed services pay act of 1981.

B. PROGRAM SUPPLEMENTAL.

The FY 1982 military personnel program supplemental can be subdivided into four areas:

1. The first consists of those discretionary items which were unfunded by the uniformed services pay act of 1981. These items, and approximate funding requested are:

AMOUNT REQUESTED	PROVISION
$2.4M	° To increase diving duty pay for officer and enlisted personnel.
$15.0M	° To allow inclusion of extensions of enlistments in Selective Reenlistment Bonus computations and to provide for increased enlistment bonus authority.
$.2M	° To provide an expansion of the Nuclear Officer Accession Bonus to include surface nuclear power officers.
$16.8M	° To provide for the reimbursement of member and dependents who occupy temporary quarters between permanent duty stations.

2. As the direct result of inflation, new Variable Housing Allowance (VHA) rates became effective on 1 October 1981. Projections, based on costs actually incurred in the first four months of 1982, indicate that an additional $30.4M is required to fully fund VHA in FY 1982.

3. Certain programs were underfunded for FY 1982. These programs include:

AMOUNT REQUESTED	PROVISION
$9.7M	° To provide Submarine Duty Pay for additional officer and enlisted personnel over that requested in the FY 1982 amended presidential budget.
$8.7M	° To provide Sea Duty Pay for 1829 additional enlisted personnel over original budget estimates.
$1.4M	° To provide Overseas Extension Pay for 2330 enlisted personnel over the original budget estimate.
$2.0M	° To provide funding to continue Foreign Duty Pay for those members receiving the pay on 1 January 1982.
$1.0	° To provide Family Separation Allowance for 2,578 enlisted personnel over the original

	estimate.
$41.6M	° To provide funding for increased retention and grade enhancement.

4. As the result of passage of the Defense Officer Personnel Management Act, an additional $25.1 million is required to provide for the requirements of that bill.

5. In addition, the program supplemental includes two items under the O&MN appropriation which are of particular manpower interest.

AMOUNT REQUESTED	PROVISION
$5.1M	° To provide for the Veterans Educational Assistance Program under current law.
$7.2M	° To provide for costs associated with the elimination of inequities in per diem policies which were not included in the FY 1982 budget.

Together, these elements of the pay and program supplemental budget requests have major impact on the morale and well being of our Navy personnel. I urge your approval of the supplemental requests.

V. SUMMARY

In summary, the great strides made in the past two years in military compensation have been a major influence in the Navy's ability to turn the corner on retention and recruiting. Our people are responding postiively from all quarters to your demonstrated support. I am confident that your continued support of military compensation will enhance our efforts to provide adequately for our members and result in a Navy which is able to meet the challenges of the future.

BIOGRAPHICAL SKETCH

Lando William Zech, Jr., was born in Astoria, Oregon on June 29, 1923, son of Dr. Lando W. and Mae (Monroe) Zech. He attended Roosevelt High School and Lakeside School in Seattle, Washington, prior to entering the U.S. Naval Academy. Graduated with the Class of 1945 on June 7, 1944 (accelerated course due to World War II), he was commissioned Ensign and subsequently advanced in rank to that of Vice Admiral, to date from August 1, 1980.

Following graduation from the Naval Academy in 1944, he joined USS JOHN D. HENLEY (DD-553) and participated in the Caroline Islands operations, Second Battle of the Philippines, assault and occupation of Iwo Jima and the Okinawa operation. Following duty aboard USS HENRY W. TUCKER (DD-875) he took submarine training at the Submarine School, New London, Connecticut. From June 1948 he served in USS FLYING FISH (SS-224) and from January 1951 to June 1952 continued duty afloat in USS BLACKFISH (SS-322).

Returning to the Naval Academy in June 1952, he served in the Executive Department until June 1954 then was assigned as Executive Officer of USS IREX (SS-482). He assumed command of USS SEA ROBIN (SS-407) in January 1956 and in January 1957 became Commanding Officer of USS ALBACORE (AGSS-569). Upon completion of the Armed Forces Staff College, Norfolk, Virginia, in July 1958, he had instruction in the Division of Naval Reactors, Atomic Energy Commission, Washington, D.C.

In June 1959, he took command of USS NAUTILUS (SSN-571). Subsequently, commanded USS JOHN ADAMS (SSN-620) from 1962 to 1965.

From May 1965 to July 1967, he headed the Submarine Assignment Section, Bureau of Naval Personnel, Navy Department, Washington, D.C., after attending the National War College, Washington D.C. He assumed command of USS SPRINGFIELD (CLG-7), flagship of Commander SECOND Fleet in July 1968. In February

1970, he reported for duty in the Secretary of the Navy's Office of Program Appraisal. He was subsequently assigned as Deputy Chief of Legislative Affairs, Navy Department.

From June 1972 until June 1974, Vice Admiral Zech served as Deputy Commander of the Navy Recruiting Command during which he was selected for Flag Rank. He then assumed the duties of Commandant Thirteenth Naval District, at Seattle, Washington. In June 1976, he became the Chief of Naval Technical Training with headquarters in Memphis, Tennessee. From August 1978, until assuming his present duties as Deputy Chief of Naval Operations for Manpower, Personnel and Training/Chief of Naval Personnel in July 1980, he served as Commander, U.S. Naval Forces Japan.

He is married to the former Josephine M. Kerr of Bristol, Rhode Island, and they have five daughters: Janet M. (Mrs. James Cooke of Richmond, Virginia); Joanne N. (Mrs. Cole Lyons of New York City); Nancy J. (Mrs. Robert Cunnane of Falls Church, Virginia); Carol M; and Patricia L. Zech.

SAVINGS IN TRAINING COSTS

Senator **Rudman**. Mr. Chairman, I would like to ask the admiral a couple of questions on the figures.

Senator **Stevens**. Go ahead.

Senator **Rudman**. If I have the numbers correct, I believe you stated you saved in training cost $ 400-some-odd million versus a cost of $27 million?

Admiral **Zech**. Yes, sir.

Senator **Rudman**. Is that $27 million just the first-year cost?

Admiral **Zech**. That is the first-year cost.

Senator **Rudman**. What is the total cost of the bonus?

Admiral **Zech**. I gave you 1981 figures. The 1982 costs for the program, I believe, are about $40 million. We figure the training cost that will be saved is in excess of $300 million in 1982.

Senator **Rudman**. In a sense, what you are saying is, from your figures, you have a $60 million bonus cost and a $500 million-plus training cost saving over 2 years?

Admiral **Zech**. The training costs would be saved in the future. They are not saved in the immediate year. These are pilots who stay on, and therefore we would not need to spend the money for training additional pilots.

Senator **Rudman**. You further stated you targeted to retain 358 people and you actually retained 599?

Admiral **Zech**. Our model showed that we would retain 358 aviators. The program was even more successful than we predicted, and we did save 599 aviators instead of 358.

Senator **Rudman**. I guess my question is simply this: Do you automatically assume a cause and effect relationship (you cite the 599 retention figure to indicate because they were paid the bonus they were retained) or do you have other evidence that indicates that without payment there would not have been retention?

I am trying to establish a cause and effect. That seems to be the bone of contention here this morning, at least if not across the entire scope of the program, I am sure the chairman and I both agree it has some valid use. What we are saying is that some of it was not properly used.

What evidence do you have and how much evidence do you have and how can you quantify that evidence about these 599 people who were retained? How many of those people would not have been retained if they had not been paid the bonus?

Admiral **Zech**. Our analysis showed zero.

Senator **Rudman**. That they all would have left?

Admiral **Zech**. Yes, sir. That is what we expected. We expected to lose those 358 aviators if we did not give the bonus.

Senator **Rudman**. I don't really know what you can supply for the record that would give us proof of that, or at least evidence to contribute to a dialog on that, but I would like you to supply whatever backup you can. I find that statistically it may be probable but logically, to me, it is improbable that all of these people would have left.

If we look at the charts that are supplied in the GAO testimony, there are a number of people who were receiving the bonuses that practically I would not think would have left the service regardless of whether or not they received the bonus.

Admiral **Zech**. If I may, Senator, our requirement for those aviators I am talking about—O-3's to O-5's—for example, is 12,619. We were short 2,430 in 1981. Our analysis showed us that if we had not had the bonus, the shortage would have increased. As a result of the bonus the shortage decreased, and we are starting to improve the readiness of our Navy because of the bonus.

Senator **Rudman**. That is an assumption, Admiral.

Admiral **Zech**. Sir, it is based on the best analysis we have. The results show that the bonus was very effective. Our figures and our analysis show that the curves were all going down until we put the bonus on. Our analysis then showed we did improve with the bonus.

One can argue with our analysis, and one can argue with our model. It is not perfect, but it has been very successful in a reasonable sort of way and we put reasonable confidence in it. You can see it was conservative in its estimate because we actually retained more aviators than the model showed we would. The model is not perfect, Senator, but I believe it shows that the trend was right and we did achieve the results that we expected.

Senator **Rudman**. I think for that model to be truly effective it would have to have more than the three factors contained in it. That model contains three factors—one, the number of the shortage, and, two, the amount of the bonus, and three, a subheading, the number of people retained. The model is made of those three components.

It seems to me for that model to really tell the whole story it would also have to include a fourth factor, and that fourth factor would be the amount of hiring by the private industry, particularly the airline industry, over that same period. I would hazard a guess that in times of high airline hiring—let us assume the airlines next year are going to hire 3,000 new pilots—that the requirement is only 2,000 hours for a copilot's position, with all the ratings, with starting pay at $40,000 to $45,000 a year, I would say that even with the bonuses being offered that you would have a very serious decline in your people with, let us say, 3 to 6 years of service, regardless of the numbers.

On the other hand, if the airlines were hiring zero, then I would expect it would show a different figure.

I understand how these models were constructed. If I were here testifying, constructing models, I expect I would construct them the same way, but I am not sure the model as constructed gives us the complete cause and effect that we are looking for.

Admiral **Zech**. The model is not the only tool we use. We do have other methods of analysis. We look at airline pilot figures, and we get surveys using their own numbers. We use all of that in our analysis. We don't rely totally on the model. I do not mean to infer that at all.

Our total analysis shows that as best we can predict it—and we all know it is difficult—airline hiring was entered in as part of our analysis of our requirements to see whether we would be able to bring airline pilots back into the Navy.

We have made rather aggressive efforts to bring back people from the airlines into the Navy. All that was figured into the total analysis, and it did, I believe, show that with an aviation bonus we could improve our situation. That is indeed what happened.

There are some things that we should do to improve the bonus, and we are certainly willing to do that.

My point is that I believe that the aviation bonus has been very cost-effective. It has been very important to us. It has contributed to the improved readiness of our Navy.

RESERVE PILOT STATUS

Senator STEVENS. Admiral, according to the figures we have, there are somewhere between 4,000 and 5,000 pilots on involuntary leave or furlough from the civilian airlines. We have a considerable number of Navy pilots in the Reserve, don't we?

Admiral ZECH. Yes, sir, we do.

Senator RUDMAN. Did you pay them the bonus to stay in the Reserve? I understand Reserve enlistments are up. Did you pay bonuses to them to come into the Reserve? Do they get any part of the bonus money for reenlistment? They don't, do they?

Admiral ZECH. We are really talking active duty.

Senator STEVENS. I am talking Reserve reenlistment. Did you pay a bonus?

Admiral ZECH. No.

Senator STEVENS. Do you have a model to find out why some people are coming into the Naval Reserve?

Admiral ZECH. We use our model for those predictions.

Senator STEVENS. I imagine the Air Force has a model that tells us why their enlistments are up without a bonus. Maybe we ought to listen to that. I am not sure we want to listen to computers. I would rather listen to your minds telling me why you think continuation of this bonus is necessary when there are so many people out there who are unemployed in the civilian sector, when enlistments are up, commitments are up in the Reserve and in the National Guard and in the Air Force.

Why do the Marines and the Navy need a reenlistment bonus?

Admiral ZECH. Reenlistment bonus is a different issue.

Senator STEVENS. I mean aviation bonus. There is a bonus for reenlistment.

Admiral ZECH. It is an aviation officer continuation bonus. "Reenlistment Bonus" refers to enlisted personnel. This is the special term we use for that.

Senator STEVENS. To me, it is the same thing; it is bonus for reenlisting.

Admiral ZECH. You asked me for my judgment and I am giving you that.

Senator STEVENS. Tell me why the Air Force is doing so well, and you need it?

Admiral ZECH. The aviation officer continuation bonus is being used by the Navy and the Marine Corps. The Air Force is using increased aviation flight pay. We are not using both in the Navy. Our regulations state that if you pay an officer a bonus, you do not pay him increased flight pay.

FLIGHT PAY

Senator STEVENS. They do get flight pay?

Admiral ZECH. Yes, but not the increased flight pay. There was not an awful lot of difference in the cost of the programs, but our analysis showed that the bonus would retain more people faster than if we applied the increased flight pay.

I might add, too, that flight pay is across the board for everyone. We tried to comply with the congressional direction and target our needs.

Senator STEVENS. If I get $38,000 to put in the bank now as compared to getting flight pay over a 4-year period, I don't think you would have to be a Navy pilot to figure that one out. With all due deference, money in the bank is money in the bank. They didn't have it available, yet their program worked, too. It did not cost the Treasury what yours is costing. We borrowed that money and the taxpayers are paying 15.5 percent interest on borrowing to pay that bonus.

Your people are putting it into the money markets or somewhere, I assume, and getting some interest, probably buying government securities if they are smart. You are giving us one terrible problem and we don't understand it, with the GAO report, why you can't come up here and say you are going to modify that program in some way to make it cost effective.

Admiral ZECH. Senator, we have a terrible problem in the Navy. We are short of aviators. The Air Force does not have the same problem that we have. The critical target area was lieutenant, lieutenant commander and commander. We have tried to comply with what Congress told us to do. We have targeted that area. We figured with the bonus payment we would have more response immediately than over the long haul. That is exactly what happened.

We simply needed to stop the hemorrhage of talent that was leaving our aviation community. We needed to do something to arrest the numbers of people leaving our aviation community. The bonus has done that. I believe it has been cost-effective. My judgment is that it should be continued.

Senator STEVENS. I thank you. I am sure you are sincere in your opinion.

General Thurman, do you have any comments?

DEPARTMENT OF THE ARMY

STATEMENT OF LT. GEN. MAXWELL R. THURMAN

General THURMAN. Thank you. I would like to speak to the point on pay comparability, or the 4 percent, or 8 percent for civilians.

I would just like to tell you that the Department of the Army speaks for the soldier, and I would simply remind the committee that in 1976, when we stopped pay comparability, after we got started in that direction for the military we were running 60-percent retention in the NCO corps, and it dropped to 50 percent by 1979 and gave us a shortage of 16,000 E-5's and E-9's at critical NCO levels.

So I would encourage you, sir, to take a hard look at the impact of that. We are going well now. We are within 3,000 of closing our NCO gap this year.

With the programs you have mentioned the enlistment are getting the Army in the shape you want it.

[The prepared statement of General Thurman follows:]

PREPARED STATEMENT OF LT. GEN. MAXWELL R. THURMAN, DEPUTY CHIEF OF STAFF FOR PERSONNEL, U.S. ARMY

I wish to thank the committee for this opportunity to present the Army's concerns about compensation. I also wish to thank the Congress once again for recognizing through our 1980 and 1981 pay increases that the men and women who serve in our Armed Forces deserve to be appropriately paid for their labors. You have also acknowledged through legislation that proper compensation takes many forms. Apart from the basic pay and allowances which recognize the individual's overall needs, we have developed through your support bonuses, special pays, and other remunerations which recognize specific skills, hazardous duties, and unique costs incurred pursuant to compliance with movement orders. In addition, we use the bonus system as a force management tool to attract qualified personnel into hard-to-fill military specialties and later to encourage especially qualified professionals to reenlist, providing the corps of careerists needed to man the Army and train junior soldiers.

We live in an era of acute economic awareness. We must compete for quality soldiers in a highly competitive marketplace. We must compete successfully enough to build a competent Army of intelligent men and women who come to the Army not out of economic necessity, but because they appreciate that the government is willing to recognize their worth. To this end, the Army leadership is concerned that we not misjudge what motivates young men and women to join and to stay in the Service.

It is more difficult to compensate military personnel properly because of the system of mandatory assignments which our soldiers must accept. In the private sector, individuals are paid according to their ability to generate profit. There is an underlying freedom of job choice with a certain degree of lateral mobility. In the military service, choice is constrained because our needs dictate length of service, duty assignment and location. This may not correspond with a soldier's personal choice. Similarly, mobility into the force is normally limited to the basic entry level. Given these differences as a foundation, military compensation can be reviewed.

All soldiers greatly appreciate the compensation improvements of the last two years. Those improvements provide reimbursement for expenses associated with relocation—often to high cost areas—and returned military pay to rough comparability with the private sector. The series of pay caps and reallocations during the 1970's caused a significant lag in military pay. Decisions to constrain pay provided short-term budgetary savings; however, the loss of personnel with their skill and experience was an ominous trend.

Current economic conditions notwithstanding, we still compete with the private sector for high school graduates and skilled personnel. We need to retain rough pay comparability to ensure successful recruiting. Many of the private sector jobs currently available to the high quality younger people we seek do not represent one's lifetime work. But then, neither does the military to most. Still, maintenance of adequate pay levels is essential to fulfill our recruiting objectives.

Collaterally, the retention picture is not improved by less than comparable military pay growth. Skilled personnel are in demand in the private sector. Our biggest long-term challenge is to ensure that pay increases keep pace with those occurring in the private sector and that other compensation-related items are maintained at appropriate levels. If not, our careerists may not be persuaded to continue a military career.

The challenge is how much can the military compensation system be adjusted given private sector wage growth, reduced inflation, increasing unemployment, and recent force manning success. The fiscal realities of the day are recognized; but, we cannot permit the government to be perceived as an "unreliable employer."

COST-OF LIVING-ADJUSTMENTS

Senator STEVENS. You are doing a great job, I think.

One of the things about this budget resolution that bothers us the most is the problem of disparity in the COLA's and what we are going to do. That is what that phone call was about. The whole question is what do we do with these COLA's? Yet, what do we do if we don't do something about them, because if we don't do something about them this year, all your budgets will be cut next year a great deal more than $5 billion.

It is a great problem for us. I am obviously very disturbed about some of these increases that we think are controllable.

I think the 4 percent is much more connected with morale than the increase in PCS, for instance.

General THURMAN. Let me speak to that point if I might. If you look at the impact on who leaves, it is always the quality people who leave if in fact the pay gets out of kilter. The less qualified people will stay; the higher quality people will depart because they are in demand.

Senator STEVENS. The people who have the ability will leave, yes.

PCS COSTS

General THURMAN. Speaking of the PCS cost, the American Automobile Association estimates 28 cents a mile, and the Runsheimer at 20 cents a mile, all of which have been quoted by the CBO and the GSA as well. Those are indicators on mileage which, of course, takes care, as Dr. Korb indicated, of the dependent travel.

Those same agencies say it costs dependents anywhere from 9 cents a mile to 12 cents a mile for traveling, pay for lodging, transportation and food costs while they are on the move. Those are the sorts of uncommon costs that are borne by service members because we order them around.

We think we ought to pay people if we order them around.

You asked about the impact of the change in PCS costs. As you know, quite a bit of our PCS cost is chargeable to entrants into the service and people who are exiting or separating from the service.

Senator STEVENS. I would like to see that breakdown. That is an enormous figure this year.

General THURMAN. We are going to spend $188 million for accession only in fiscal year 1983; for separation, $199 million to let people who served well go back to American life; and for rotational travel overseas, $637 million.

Now if you take the amount that Dr. Korb indicated—$77 million—it would run our overseas tours from 36 months to 42 months. Overseas tours would be extended by 6 months in Europe. In Korea unaccompanied tours would go from 13 months to 18 months. That gives us some impact of what happens when you look at the current tours versus those that would occur after a large PCS cut.

What the long-range impact will be on morale or reenlistment or retention, I don't have the faintest idea at the instant. But that gives you some notion about that.

Senator STEVENS. Senator Rudman, any questions?

General THURMAN. Incidentially, I did not speak to the civilian pay raise. You know, an enormous decline took place while we had the cap on for senior people, particularly scientists and engineers. I think it would be a damaging signal for us to tell them we like them less. I think the civilian sector should be comparable to where they are. I, for one, will speak for the civilians.

Senator STEVENS. General Bronars, I think you are involved in bonuses, too.

U.S. MARINE CORPS

STATEMENT OF LT. GEN. EDWARD J. BRONARS

General BRONARS. Yes, sir, I would like to make a few comments.

Senator STEVENS. Tell me about the background. I don't want to embarrass Dr. Korb at all, but apparently you were successful in arguing to extend the bonus to the Marine Corps when the civilian staff over there didn't believe it should be done. That is our information.

On what basis did you argue that the Marine Corps ought to have the bonus when the reenlistment rate shows it really didn't need it?

General BRONARS. Are you talking about the aviation officer situation?

Senator STEVENS. Aviation continuation. Pardon me, again.

General BRONARS. Yes, sir. We, of course, are part of the Department of the Navy. The Marine and Navy officers are naval aviators, and they serve in the same environment. We also felt we had a critical shortage. We were 18 percent short of our requirement for pilots and 15 percent short of our requirement for NFO's.

We feel that the aviation officer continuation pay, as applied, was very successful. I don't think we have inflated our estimate of the impact it has had on our ability to retain aviation personnel. As a result of applying the AOCP, our trends in retention—downward prior to that time—improved, and we were able within this period to reduce the shortage in pilots from 18 to 5 percent.

Right now we are short about 150 pilots. Initially our shortage primarily existed in the O-2 and O-3 levels in the Marine Corps; however, we felt it was appropriate to offer the bonus to all with 6 to 15 years of aviation experience for several reasons. The most important is that we are going to transition to two new aircraft, replacing our entire inventory of light attack aircraft and fighter aircraft over the next few years.

In order to do this and do it successfully we have to have experienced pilots. We can always use grade substitution in order to handle that experience level. As a matter of fact, the more experienced the pilot is the more successful he will be in making that very difficult transition from one aircraft to another.

PILOT GAIN FROM BONUS PROGRAM

Our statistics show that for the expenditure of $7.6 million in 1981 we gained 90 aviators over what we would have gained otherwise. You can argue whether the model works or not, but we gained some. If we didn't retain these people we would have to increase our pilot training rate. If we increase our pilot training rate, we have to have more training aircraft. If we have more training aircraft, we have to have more mechanics. If we have more personnel going through the training program, we have to invest in more instructors.

There is a whole bunch of savings involved in this program.

All we are talking about is identifying the savings that the Air Force and the Navy figure can be achieved in not having to train a new pilot, and that is about $800,000. If I multiply 90 by that number, I have had a very cost-effective program. I have maintained experienced personnel. I have cut down the shortage on my pilots in a very short period of time. I am able to save mission accomplishment, and that is what the Marine Corps is all about.

So we still maintain that the AOCP is a very cost-effective program.

We would like to have this committee, sir, and you, personally, look at it very carefully. We will provide a report. We will get together with your staff and show you why we think that it should be continued for 1 more year to allow us to get completely well so that we can face these challenges of the future.

[The prepared statement of General Bronars follows:]

PREPARED STATEMENT OF LT. GEN. EDWARD J. BRONARS, USMC

DEPUTY CHIEF OF STAFF FOR MANPOWER

U. S. MARINE CORPS

Mr. Chairman, distinguished members of the subcommittee:

It is a privilege for me to appear before you and present the Marine Corps manpower plan and appropriation request for fiscal year 1983 and briefly discuss our program supplemental request for fiscal year 1982. Our program calls for an increase in active duty Marines of 3,393 manyears over the fiscal year 1982 level, for a fiscal year 1983 average strength of 193,755. This increase will provide the additional manpower necessary to restore certain force capabilities, such as air defense and service support, that were placed in a cadre or reduced manning level status in past years because of manpower constraints; improve capabilities in both the aviation and ground combat elements; increase overall manning of the active force to achieve improved readiness levels; meet growing requirements external to the Marine Corps; and provide for the training and administrative overhead needed to efficiently support the force.

Accompanying this increase in average strength is an increase in quality, both of which can be attributed in large measure to your past support for needed enhancements in compensation and other benefits. Military compensation is now at, or near, competitive levels with the private sector, and the results are apparent. That level of relative parity has, in my estimation, been key to our success in attracting and retaining quality personnel. Future success depends on maintaining this relative position. This favorable trend in terms of quality is fundamentally important to maintaining the pride, esprit, discipline, professionalism and overall combat readiness that you and the American public expect from the United States Marine Corps. We intend to live up to those expectations.

MANPOWER COSTS

Program Supplemental. The fiscal year 1982 program supplemental totals $50.7 million of which $31.64 million is fact-of-life. The remainder $19.06 million is for discretionary items. Fact-of-life items require funding and cannot be absorbed from within the appropriation without disruptive management action. Funding for discretionary items can be avoided by delaying implementation to next fiscal year, but only at the cost of credibility and morale.

Fiscal Year 1983 Request. The MPMC appropriation request of $3.3 billion provides for pay and allowances, subsistence, individual clothing and permanent change of station travel to support an average strength of 193,755 active duty Marines. This amount is $142 million higher than our fiscal year 1982 request. The majority of the increase occurs in pay and allowances to support the improved manning. Permanent Change of Station costs also increase as a result of authorized rate increases in reimbursements for expenses incurred during government directed moves, an increase in Household Goods (HHG) Weight Allowance for certain Okinawa bound Marines and the authorization for Temporary Lodging Expense.

The most difficult manpower requirement to satisfy has been for Marines trained and experienced in the highly technical skill areas requiring extensive formal schooling. Of the Marine Corps' 38 occupational fields, seventeen are undermanned, of which ten are categorized as being critically short.

In fiscal year 1980 the number of enlisted Marines required to man all of those occupational fields up to at least 85 percent was 5650. During fiscal year 1981, this shortage was reduced to 4,640, an overall reduction in this deficiency of 18 percent. This rather significant success can be attributed primarily to the Selective Reenlistment Bonus (SRB) program, which permits us to target effective monetary incentives to increase reenlistments in specific skill areas.

The combination of improved compensation and the SRB program has been instrumental in the success we have enjoyed recently in reducing losses of career noncommissioned officers. From fiscal year 1979 to fiscal year 1981, the reduction in losses was 32.8 percent. This turnaround in overall retention of career personnel is the single most important contributor to the substantial progress realized over the past two years in better satisfying skill and supervisory requirements. With the necessary funding, to include the supplemental request to fully fund the SRB program, we expect this progress to continue.

QUALITY OF LIFE

An important consideration in a Marine's career decision is his perception of what he and his family can expect in terms of affording the fundamental requirements for housing, schooling, medical care and recreation. The steps taken by the 96th Congress and the most recent steps taken by the 97th Congress have had a positive impact on this perception and, as a result, retention has improved. Personnel deficiencies, both in terms of skills and numbers, can be gradually eliminated with continued attention in the following areas:

Pay Comparability. The key to maintaining pay comparability is to establish a military pay raise adjustment mechanism tied to an appropriately developed index for comparable types of work and levels of responsibility in the private sector. This would take advantage of insights gained during previous pay studies, which concluded that military pay relative to civilian opportunities is a major determinant of the services' ability to attract and retain qualified personnel. The response to recent pay raises has been good, indicating that when we are at or very near competitive levels with the private sector. Every effort should be made to retain this relative position so that military personnel can feel confident that a career in the military will provide a reasonable standard of living for themselves and their families. They need this sense of confidence in order to justify the personal and family sacrifices that are inherent in a military career.

Permanent Change of Station (PCS) Reimbursements. A significant problem that continues to affect military personnel during the execution of government-ordered relocation is the high cost of today's travel, a significant part of which is subsidized by the individual. This subsidy of the government on the part of our Marines is particularly difficult to accept since civilian federal employees who are transferred to new locations are reimbursed at a higher rate, as are employees in the private sector. We urgently need the budgeted increases for member and dependents travel.

Officer Retention. In fiscal year 1980 we experienced a decline in total officer attrition. I am pleased to report that this trend continued in fiscal year 1981, with officer attrition dropping from 9.7 percent in fiscal year 1980 to 9.1 percent in fiscal year 1981. We attribute this decrease directly to your support and efforts in providing improved compensation. However, of continuing concern to the Marine Corps is the Naval Aviator shortage. As a result of the Aviation Officer Continuation Pay (AOCP), we were able to reduce that shortage of 581 pilots and 124 Naval Flight Officers at the beginning of fiscal year 1981 to 178 pilots and 113 Naval Flight Officers at the present time. If improved pilot retention rates continue and planned pilot training rates are met, we will satisfy our inventory requirements for aviators by the mid 1980's. The AOCP has been an effective tool in our improved pilot retention, and we would like to see it continued in fiscal year 1983.

Enlisted Retention. Fiscal year 1981 was the most successful retention year the Marine Corps has experienced. Attrition trends continued downward and, by year's end we had reenlisted approximately 16,000 Marines.

This success in reenlisting trained, experienced Marines has allowed us to substantially reduce the shortage of noncommissioned and staff non-commissioned officers, significantly improve our overall technical skill personnel inventory, and increase personnel readiness throughout the Marine Corps. Our reenlistment goal for fiscal year 1982 is 16,000 which, based on fiscal year 1981 experience, is both realistic and achievable. I am happy to report that we are exceeding that reenlistment goal during the first seven months of this fiscal year. Based on these early returns, and assuming approval of a supplemental funding request now pending, I am confident that our fiscal year 1982 enlisted retention goals will be met. We have planned and budgeted for a modest increase to 16,500 reenlistments in fiscal year 1983.

RECRUITING

Fiscal year 1981 was also a good recruiting year for the Marine Corps. We achieved 104 percent of goal, and enlisted 80.1 percent high school graduates. Our percentage of high school graduate accessions has increased each year since 1975.

Despite these successes, we remain aware that a declining youth population and projected economic improvements in fiscal year 1983 could create a more difficult recruiting environment, further emphasizing the need to maintain military compensation at a competitive level with the civilian sector, fully fund recruiting support and advertising and ensure the enlistment bonus keeps pace in order to continue our improvement at reducing our critical skills deficiency.

We continue to be hindered by the lack of access to criminal and juvenile records. Failure to correct this problem contributes to the high cost of recruiting and training new accessions. Applicants with established patterns of involvement with the law simply do not make good Marines, and they have an adverse effect on the morale of other Marines. Most are unable to comply with more stringent military disciplinary standards and must be discharged before completing their enlistments. When this happens, invested training costs are wasted, and the recruiter must expend the additional time and effort to recruit a replacement. This all costs money. Much of this expense could be avoided if the recruiting service had access to criminal and juvenile records. I strongly urge your support for Senator Tower's bill which represents a major step in the direction of alleviating this serious situation.

CONCLUSION

Marine Corps programs are healthy and fully capable of satisfying the needs of the Marine Corps, both in peacetime and in the event of mobilization. Visible improvements are being made in all deficient areas. Higher strengths are being achieved to improve overall capabilities and personnel readiness. Recruiting and retention programs are going well and are meeting our goals both in terms of quality and quantity. Skill and grade shortages are being reduced at a satisfactory rate. I thank you for your past support and solicit your continuing support for the fiscal year 1982 supplemental and requested budget levels for fiscal year 1983; they are necessary to maintain our high standards and achieve our principal objective of a professional, highly trained, disciplined fighting force that is fully capable of accomplishing all assigned missions as this nation's force-in-readiness.

This, Mr. Chairman, concludes my statement. I am prepared to respond to your questions.

LIEUTENANT GENERAL EDWARD J. BRONARS, USMC

Lieutenant General Edward J. Bronars is the Deputy Chief of Staff for Manpower, Headquarters Marine Corps, Washington, D.C.

General Bronars was born April 12, 1927, in Chicago, Ill., and completed Holy Trinity High School there in 1944. He attended Illinois State (Normal) University and the University of Illinois prior to entering the U.S. Naval Academy in 1946 and graduating in 1950. General Bronars is also a graduate of the National War College (1969) and earned a master's degree in International Relations from George Washington University. In addition, he attended the Basic School, Quantico, Va., in 1950; the Naval Language School (Russian) in Washington, D.C., in 1952; a Foreign Area Study Program (Russian) during 1955-57; and the Amphibious Warfare School, at Quantico, from August 1963 to May 1964.

Following Basic School, General Bronars' tours of duty included service as a platoon leader with the 3d Battalion, 8th Marines; company commander with the 2d Battalion, 2d Marines; S-3 officer with the 5th Marines in Korea; Instructor and Platoon Commander at the Basic School; Assistant Naval Attache, Belgrade, Yugoslavia; and Intelligence Officer with the G-2 Division, Fleet Marine Force, Atlantic.

In Vietnam, he served successively as a Senior Advisor, Rung Sat Special Zone; Commanding Officer of Battalion Landing Team 3/5 and the 3d Battalion, 5th Marines; Assistant Chief of Staff, G-3, Task Force X-Ray; and Commanding Officer, 3d Battalion, 7th Marines.

Returning from overseas, he was assigned as Plans Officer and Analyst, G-2 Division, Headquarters Marine Corps, and served subsequently as Plans Officer, Joint Planning Group, Headquarters Marine Corps; Commanding Officer of the 1st Marine Regiment; and Assistant Chief of Staff, G-3, 1st Marine Division.

He then served as Chief, Surface Operations and Plans Division, Assistant Chief of Staff, J-3, U.S. Support Activities Group, Thailand, prior to being promoted to brigadier general on August 21, 1974. Following his advancement to that grade, he served as Commanding General, Landing Force Training Command, Atlantic, Norfolk, Va. He was assigned duty as Deputy Chief of Staff for Requirements and Programs, Headquarters Marine Corps, Washington, D.C., in June 1975, and was advanced to major general on February 26, 1976.

In May 1978, General Bronars was assigned duty as the Commanding General, 2d Marine Division, Camp Lejeune, N.C. He was promoted to lieutenant general on July 1, 1979, and assumed his current assignment as the Deputy Chief of Staff for Manpower, Headquarters Marine Corps.

General Bronars' personal awards and decorations include the Silver Star Medal, the Legion of Merit with Combat "V" and gold star in lieu of a second award, the Bronze Star Medal with Combat "V" and gold star in lieu of a second award, two Air Medals, the Joint Service Commendation Medal and the Navy Commendation Medal with Combat "V".

Lieutenant General Bronars and his wife, the former Dorothea R. Bates of Louisville, Kentucky, have two children, Barbara and Bruce.

PILOT INVENTORY

Senator STEVENS. I would like any one or all of you to tell me how you are ever going to stop it. If it were necessary for these 200 Navy pilots, or your group, to reduce your shortage and get them to stay this time, isn't it going to be necessary for the next group?

General BRONARS. No, sir.

Senator STEVENS. Isn't it going to be necessary for the next group?

General BRONARS. As a matter of fact, the cost of the program for the Marine Corps is going from $7.6 million in 1981 to $1.6 million in 1982.

Senator STEVENS. But that next group has not demanded it yet?

General BRONARS. We think that when we go through fiscal year 1983, sir, our pilot inventory will be approaching a healthy status, and at that time we would—at our own initiative—recommend that the pilot bonus be stopped. We are near our objective, and we think the Congress in authorizing us to initiate the bonus program did the right thing. We don't think we took advantage of the mandate that the Congress gave us. We believe it has been a very cost-effective program.

Admiral ZECH. The Navy has the same view, Mr. Chairman. The program is a bonus program which we look on as something that is important now but temporary. Our projections and analysis originally showed us we would need the program until 1989. However, because of our improved results from the program I believe when we conclude 1982, our analysis will probably show that we can cut the program back before that time.

When we started, our whole approach was that the program would be put on and later taken off. We figured we could take it off when we meet our requirements, and that certainly is our intention. When we meet those requirements, the program will no longer be necessary.

FUTURE TRAINING COSTS

Senator STEVENS. God willing, I will be here at that time. I want you to know I will be looking to see whether those training costs are reduced. It is probably a little bit early to see whether there is a real savings. I have not seen any reductions in your training cost requests yet, but I had better see them in 2 years, because I don't think these can be just theoretical savings, that you match a computer up and say what will it cost to train these guys if the others left.

If you training does not go down, that is where the proof of this is. You say you are going to make a savings in training by paying this bonus now. I want you to know that it is in the old computer up here and I am going to ask you 2 years from now where are the savings. I am of the opinion, the same as Senator Rudman, I disagreed with the bonus concept because I thought it would bring about a disincentive and I think it will over a period of time if you don't continue it.

We are not going to fight it this year. We will see what happens, because in the 1984 fiscal year we are going to see whether there is going to be any reduction in training cost. If there is not, I think we will certainly know that we should not continue with any more continuation bonuses.

I am going to start looking at some of these reenlistment bonuses, too, and see how effective they really are in the economy that we have right now.

Dr. KORB. Mr. Chairman, as I mentioned in my statement, we have already reduced or terminated 116 bonuses. So we do constantly monitor all the programs.

Senator STEVENS. I understand that. I think the reason the Congress voted for them was because of the bonus comparison with the training cost.

Dr. KORB. That is correct.

Senator STEVENS. Sometime that has to show up in your figures.

Dr. KORB. That is correct.

Also, I think you will see an increase in readiness which is the other side of the coin.

Senator STEVENS. Gentlemen, we now get to the Air Force.

General BRONARS. Could I make two points that are of importance to the Marine Corps?

Senator STEVENS. Yes, sir.

General BRONARS. You were talking about reenlistment. In the supplemental you will be looking at the Marine Corps' request for $9 million for the selective reenlistment bonus program. As you have stated, the value of the reenlistment bonus can be visibly seen by the statistics we can provide. We have had tremendous success in convincing experienced, highly trained individuals to remain in the service. When you do that, you have avoided a lot of training expense.

That $9 million in the supplemental is important to us for this year. If we don't get it, we have to shut off our program. We ask the committee to look at it very carefully.

Senator STEVENS. We will. I compared that in my analysis to the recruitment money rather than anything else. I really think that the bonus is well spent if the results are as favorable as the recruitment money is on an objective analysis.

I don't argue the reenlistment bonus as much as I do this continuation bonus, when it was not phased into the economy. I think our real problem is that the economy is down. I have talked to a lot of people up my way who are on furlough from various civilian groups and they all came out of the military; 85 percent of them came from military training. They are telling everybody don't get out right now because there is nothing for anybody. I know that has an impact much more than your bonus does in terms of retention.

It is my opinion that the economy had much more of an impact than your bonus did.

DEPARTMENT OF THE AIR FORCE

STATEMENT OF LT. GEN. ANDREW P. IOSUE

Before hearing your comments, General, we will place your prepared statement in the record.

[The statement of General Iosue follows:]

PREPARED STATEMENT OF LT. GEN. ANDREW P. IOSUE, USAF

DEPUTY CHIEF OF STAFF, MANPOWER AND PERSONNEL

U. S. AIR FORCE

Mr. Chairman and Members of the Committee:

I. INTRODUCTION

I appreciate this opportunity to appear before you discuss manpower and personnel issues of the United States Air Force for Fiscal Year 1983. Our collective efforts on both sides of this table will, in large measure, determine the preparedness of the United States Air Force. Our success in attracting young people in the right numbers and of sufficient quality, and in training and using them on flight lines, bases, and in laboratories, is the key to maintaining a strong Air Force.

Last year, the Air Force requested significant improvements for recruiting, training and sustaining our people in both the active and the Air Reserve Forces. I wish to thank this committee for supporting many of these requests. The leadership of the members and the professionalism of the staff were the catalysts responsible for rebuilding our battered manpower situation. Clearly, the improvements which you have funded have had a positive impact. We are working now to continue on this positive track. It won't be easy, because several trends currently in our favor, such as high unemployment rates, lowered airline hiring rates, and a sizeable youth cohort will turn against us. Any other factors such as public sentiment or a shortage of funds for parts, training and weapons could change and impact adversely on Air Force recruiting and retention.

Moreover, in FY 83, we are increasing military strength to meet the requirements of modernization, improvements in wartime readiness and sustainability, security, training, and the Air Force's continued aggressive commitment to the Total Force.

There is a widespread perception that personnel costs are excessive and running out of control. This is simply not the case. Overall, personnel costs as a percentage of the Air Force's total budget have been steadily declining. For example, in 1974 personnel costs -- including military retired pay -- represented more than 55% of the Air Force's Total Obligation Authority; in 1983 these costs will represent about 37% -- a decline of 18 percentage points.

We are very conscious of our stewardship obligations with regard to personnel costs and personnel utilization and are doing our utmost to use our resources efficiently and effectively. Consequently, the initiatives and programs which we are discussing with you today are the minimum required to assure that we continue the current positive recruiting and retention trends. These initiatives will require increased dollars, but we believe that the costs will be more than offset by gains in recruiting, morale, retention, productivity and force readiness.

The retention of our high quality, well trained and thoroughly experienced people remains our top priority and is the key to readiness. As we expand the force in the 80s, extraordinary retention will be needed to close the experience gaps that developed in the late 1970's. Additionally, in any future crisis, we cannot rely on having time to get ready; we must be ready. Our emphasis on maintaining the current retirement system, pay comparability, compensation initiatives, reimbursement for relocation expenses, and quality-of-life improvements is reflective of this need.

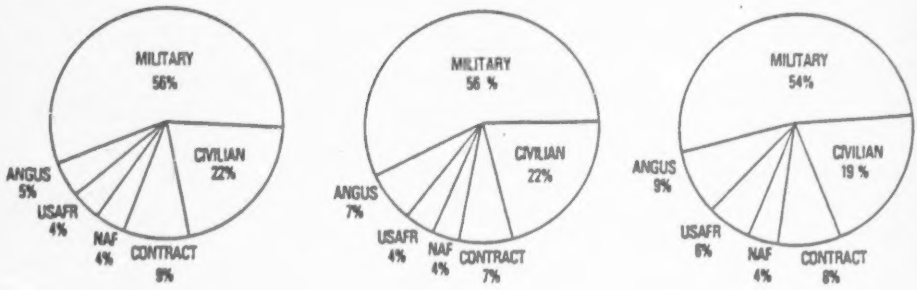
My statement will address each of these items in detail beginning with our manpower requirements for FY 83.

II. AIR FORCE MANPOWER REQUIREMENTS FOR FY83

The Air Force's active military, civilian and Reserve forces manpower requirements represent a balanced mix within the President's Budget request for FY 83.

As shown below, despite a decrease of more than 25 percent in total end strength compared to the pre-Vietnam era, the mix of Air Force military personnel, civilian employees and contract man-year equivalents has remained relatively stable. Our consistent, analytical approach to defining wartime and peacetime manpower requirements contributes to this stability. The mix also reflects an increased reliance on the Reserve components as a direct result of the successful implementation of the Total Force policy.

TOTAL MANPOWER RESOURCE
AVAILABLE TO PERFORM AIR FORCE WORKLOADS



FY 64
1,501,000

FY 73
1,228,000

FY 83 PB
1,110,497

In fiscal year 83, we continue the increases in active military manpower that we began in FY 81, the first increase since 1968. Our civilian end strength in FY 83, after increases in FY 81 and FY 82, returns to the decreasing trend we had experienced since 1967. Manpower for our Reserve components continues to grow in FY 83. The table below compares our manpower program in the FY 83 budget against assigned strength at the end of FY 81.

In fiscal year 83, we continue the increases in active military manpower that we began in FY 81, the first increase since 1968. Our civilian end strength in FY83, after increases in FY81 and FY82, returns to the decreasing trend we had experienced since 1967. Manpower for our Reserve components continues to grow in FY83. The table below compares our manpower program in the FY83 budget against assigned strength at the end of FY81.

	FY 81 Actual	FY 82 Estimate	FY 83 Budget Request
Active Military	570,302	580,800	600,000
Selected Reserve	159,858	163,836	168,381
ANGUS a/	(98,293)	(100,000)	(101,781)
Drill Pay	(95,359)	(96,788)	(96,623)
FTAD b/	(2,934)	(3,312)	(5,158)
USAFR a/	(61,565)	(63,736)	(66,600)
Drill Pay	(61,082)	(63,264)	(66,121)
FTAD b/	(483)	(472)	(479)
Civilian	246,165	247,129	242,839

a/ ANGUS/USAFR technicians are also included in civilian totals (29,230 in FY 83).
b/ Full-Time Active Duty

ACTIVE DUTY MILITARY

The military manpower program included in the President's Budget for FY 83 reflects a 19,200 increase. This increase is required to support the continued modernization of our general purpose forces; new weapons systems such as the Air Launched Cruise Missile (ALCM), Compass Call, Ground Launched Cruise Missile (GLCM), EF-111, AWACS, and TR-1; wartime readiness initiatives; increased security of nuclear weapons; and increased medical and training support. These increases are partially offset by the phase down of some of our B-52D aircraft.

CIVILIAN

The civilian manpower program, approximately 20% of our total manpower resource, represents an important element of the Air Force's ability to support and sustain its wartime capability. An in-service depot maintenance capability is retained to provide a flexible, productive industrial repair base, capable of expansion during wartime, to support our fighting force. Also included in Air Force civilian end strengths are 29,230 Air Reserve Forces Military Technicians -- members of the Air National Guard and Air Force Reserve -- who serve in their units on a full-time basis as dual-status civilians in peacetime, and become active military members upon mobilization.

The 4,290 net decrease in civilian end strength in FY 83 is primarily the result of reductions levied on the Air Force to meet OSD/OMB civilian ceiling constraints.

AIR RESERVE FORCES

The increased levels in the Air Reserve Forces required in FY 83 are a result of continued force modernization and improved manning levels.

CONTRACTING

Contracting for accomplishment of commercial activities continues as a part of our overall effort to reduce Air Force operating costs. Workloads are considered for potential contract performance when a formal review procedure determines they do not require military or in-service civilian personnel. This review ensures that our combat readiness is not compromised before workloads are programmed in the budget process for an OMB Circular A-76 comparative cost analysis. Such studies compare the total government cost of the most efficient in-house operation to the total cost of contracting for such services. The decision to perform a function in-service or by contract is based upon the result of the cost study -- the more cost-effective method of performance is selected. Subsequent contractor performance is continually monitored to ensure that we continue to receive the most service for the lowest cost.

Our FYs 80 and 81 cost comparison programs have thus far resulted in 148 contract conversion actions at a cost advantage to the government of over $194 million. The strong pressure exerted at command level to ensure the most efficient and cost effective in-house estimates has resulted in a cost advantage of over $27 million for those 59 functions which remained in-house.

In FYs 82 and 83, we will conduct over 500 cost comparison studies involving about 10,000 manpower authorizations. These and subsequent studies will comply with Section 502 of the FY 81 DOD Authorizations Act. Congressional notification of the FY 82 cost comparison program was made in February 1982, and we anticipate announcement of the details of the FY 83 program soon.

The Air Force is a leader in effective management of the cost comparison program for contracting commercial activities under OMB Circular A-76. We have been successful with this program because of the rigorous review process we employ to determine the eligibility of activities for contract and the overall impact on wartime capability. The Air Force is also approaching and, in fact, may already have reached its maximum capability to conduct cost comparison program studies without significant additional resources. It now takes approximately two years from announcement of a cost comparison program to completion of all studies. The addition of continually larger programs builds up a bow wave of studies which tax available resources.

The Air Force supports continuation of a moderate contracting program. However, the imposition of additional large-scale contracting objectives poses a risk of degrading our wartime capability and flexibility or forcing us to begin to infringe upon institutional support programs such as commissaries and morale and welfare type activities. The Air Force, therefore, seeks relief from increasingly larger programs.

III. MILITARY PERSONNEL MANAGEMENT

We must continue to pursue aggressive military personnel management policies regarding recruiting, retention, compensation, and institutional supports for our people. Should we fail to continue our improvements in these areas, we could easily and quickly suffer a reversal in retention trends and return to the brink of disaster we were facing less than three years ago.

DEMOGRAPHICS

Our people are top-quality and they need to be. Their education surpasses that of any other similar group in the United States. More than 93 percent of our enlisted members have a high school diploma, and over 8 percent have two or more years of college. The average Air Force NCO is 28, married, has two children, over one year of college, and seven years in the Air Force. Our average officer is 34, married, has one child, and holds a college degree; 42 percent have advanced degrees. Air Force members are dedicated people; many routinely work 12 hours a day. Our most difficult challenge is to attract and retain these top-flight young men and women in the active and Air Reserve forces. Sufficient numbers of high-quality members are essential to our ability to successfully operate and maintain the more sophisticated weapon systems that are entering the inventory under our force modernization program.

RECRUITING

In FY 81, the Air Force met all its recruiting objectives with the exception of engineer and physician specialists . We accessed 6,800 new line officers and a combined total of 81,000 non-prior service and prior service recruits. One of the difficulties in recruiting engineers is the disparity in wages between the $18,400 which we can offer a second lieutenant versus the $23,000 annual average starting salary industry is offering engineers. We have undertaken numerous initiatives to increase the number of Air Force military engineers including an education program to provide engineering degrees to new officers with scientific degrees. The effects of the additional ROTC scholarships authorized by Congress are beginning to be felt in an increased flow of engineering officers into the Air Force. Continued funding for these scholarships is essential. Recruiting of physician specialists is hampered by the strong demand in the civilian sector. The Air National Guard and Air Force Reserve met and exceeded their end-strength goals although some critical-skill shortages still exist.

Recruiting quality continues to be high. All of the line officers accessed in FY 81 had at least a baccalaureate degree. Eighty-three percent of the FY 80 non-prior service recruits had a high school diploma; in FY 81, 88 percent had a high school diploma. Moreover, we project, for FY82, that 93% will have a high school diploma. Possession of a high school diploma is a significant predictor of first-term retention since recruits without a diploma attrit at about twice the rate of those who do.

Our recent recruiting success is due to a number of factors which have been working in our favor. In addition to adequate, well-managed recruiting resources, military pay has been restored to comparability levels and civilian unemployment has remained high. However, we cannot expect current economic conditions to continue indefinitely. When unemployment rates moderate, civilian demand will increase for the very kinds of high quality people we are seeking for the Air Force. In addition, the recruit-eligible population is declining at the same time as Air Force recruiting goals are increasing.

In FY 83, we will be recruiting more enlisted personnel with prior military service and will be seeking officers in high-demand skills such as engineers and physicians. The following table compares our recruiting objectives for FY 82 and FY 83.

Recruiting Objectives	FY 82	FY 83
Enlisted: No Prior Service	69,000	71,300
Prior Service	6,000	10,000
Officer Training School (OTS)	3,279	4,685
Health Professionals	1,927	1,337
	80,206	87,322

As recruiting becomes more difficult, it is increasingly important that we use our best people as recruiters. Of all the Services, only the Air Force has been able to maintain an all volunteer recruiter force, but its continuation is tenuous. As a recent Army study shows, volunteer recruiters are significantly more effective than nonvolunteers. To insure we can get and keep enough top-quality volunteers, we need to provide an enhanced incentive pay in recognition of the unusual, critical nature of recruiting duties. The existing rate of Special Duty Assignment Proficiency Pay (SDAPP) has been fixed since 1974 and has lost much of its incentive value. Accordingly, we plan to propose an initiative in this area which will bring dividends in getting and keeping the right people in this demanding field.

In summary, our recruiting objectives for FY 83 will increase by nine percent. We are requesting only one percent growth in the FY 83 budget to handle this increased workload. Obtaining the numbers and quality needed will tax our recruiting resources. However, retaining these people for an Air Force career represents a more difficult leadership challenge.

RETENTION

Across the board, Air Force retention is up, influenced largely by aggressive internal Air Force retention programs, the recent catch-up pay raises, the current state of the economy, and by a renewed national sense of patriotism and appreciation for the military. However, we must sustain the recent retention improvements to eliminate shortages in critical skills and rebuild the experience base we lost during force reductions and low retention of the late 1970's. Recent history clearly illustrates how neglect of compensation and quality-of-life programs will quickly affect retention.

Officer Retention: The trend toward continually decreasing retention bottomed out in FY 79 with improvement evident in FY 80 and continuing in FY 81 and the first half of FY 82. However, shortages and low experience levels in critical-skill areas persist. Current officer skill shortages are depicted below.

OFFICER SHORTAGES

	PILOTS	NAVIGATORS	ENGINEERS	PHYSICIAN SPECIALISTS
FY 80	1100	300	1100	100
FY 81	1100	600	1000	200

At present retention levels, navigator shortages should be eliminated by FY 86, but pilot shortages will continue through FY 88. We have prioritized our manning to ensure that necessary strength levels are maintained in flying units and other critical areas. With improved recruiting and retention success, engineer shortages could be overcome in FY 85. Although total physician manning approached authorizations in FY 81, shortages of critical specialists persist. A number of factors including better recruiting success, improved special pay, and higher output from training programs should result in significant improvement in critical specialty manning by FY 87, but shortages in medical specialties will continue throughout the foreseeable future due to lack of competitiveness in salaries. The table below depicts historic continuation rates at the career points which are most significant for officers.

OFFICER CONTINUATION RATES

	FY 77	FY 78	FY 79	FY 80	FY 81
Pilots (6-11 YOS)	48%	38%	26%	42%	54%
Navigators (6-11 YOS)	49%	53%	44%	57%	62%
Nonrated Line (4-11 YOS)	39%	43%	44%	56%	54%
Engineers (4-11 YOS)	34%	36%	36%	53%	47%

Retention of pilots and navigators improved and the voluntary retirement rate declined from 24% in FYs 79 and 80 to 18% in FY 81. These retention improvements must be sustained in the long term, and pilot and engineer retention must be increased above the FY 81 levels. Continued extraordinary retention levels are one key factor in restoring experience levels. The rebuilding job is significant. For example, since 1976, the average flying time declined by 10% for pilots and 14% for navigators. The average years of service declined by 12% for nonrated officers. Restoring these experience losses is a long-term effort and will require continued attention and support by the Congress.

Enlisted Retention: As with the officer force, enlisted retention improved in FY 81 over FY 80 and the improvement is continuing in FY 82. Overall manning is generally good, but there are shortages, particularly in the mid-level leadership grades in some career fields. We have a sizeable shortage in the NCO supervisory grades of E-5 through E-7 in critical war fighting skills including aircraft systems maintenance, munitions weapons maintenance, avionics, missile electronics maintenance, communications-electronics, and intelligence. Similar skill shortages exist in the Air National Guard and Air Force Reserve, although generally in lower grades. Recent reenlistment trends are provided in the following table.

REENLISTMENT RATES	FY 79	FY 80	FY 81
First Term	38%	36%	43%
Second Term	60%	63%	72%
Career	91%	92%	94%

We need to continue to improve retention levels in order to restore the significant enlisted experience decline of the 70s. From FY 77 to FY 81, while Air Force enlisted end strength declined only one percent, our experience dropped nine percent. This means a loss of 305 thousand man-years of experience. We lost one out of every four E-8 maintenance supervisors in FY 79. So, while our overall retention has improved, we must not lose sight of the important experience losses in our war fighting skills. These are the kinds of skills most costly to train and most readily transferable to the private sector.

The Air Force is taking a number of steps to eliminate shortages in critical skills. Key among these are targeting Selective Reenlistment Bonuses (SRBs), higher promotion opportunity, prior service accessions and retraining to the shortage skills. We expect these actions will reduce NCO shortages from an original projection of 11,000 in FY 82 to less than 6,000 by the end of FY83.

The SRB program has contributed significantly to the higher reenlistment rates. However, as we are concerned that the recent change to installment payments instead of lump sum payments will increase losses, we favor continuing with the lump sum payment. A recent GAO report highlighted the loss of SRB monies through failure to recoup payments from members separating prematurely or being utilized outside their bonus skills. This is an extremely small problem in the Air Force -- only $36,013 was not recouped in FY 81. This is less than .03% of the Air Force FY 81 SRB program. We are taking action to reduce this further.

COMPENSATION

The Air Force's Fiscal Year 83 Enlistment Bonus (EB) and Selective Reenlistment Bonus (SRB) budgets are slightly higher than fiscal year 82. The EB budget increases from $2.3 million to $2.9 million and represents a slightly higher number of EB requirements but no increase in authorized skills. Although there are fewer reenlistees receiving the SRB, the SRB budget increases from $114 million to $119 million due to a different mix of members at higher payment levels; also we must pay annual installment obligations to members who reenlisted in FY82 after Congress directed the change from lump sum to installment payment method. These relatively small increases reflect the Air Force's need to continue to provide an incentive to encourage enlistments in hard-to-fill skills and to meet career force requirements in critical skills such as air traffic control, integrated avionics, aircraft maintenance, and computers.

The October 1981 pay raise essentially restored military pay to the relative levels of comparability with the private sector that existed at the advent of the All Volunteer Force (AVF) in 1972. Accordingly, having achieved this, it is now extremely important that we maintain comparability with the private sector over the long term and ensure that the military pay raise process is stable and predictable and, above all, fair to our people in uniform. The President's original budget projection for the pay raise reflected an estimate of the growth in private sector wages which occurred from March 1981 to March 1982.

An important retention incentive for which we are requesting funding in the FY 82 supplemental and the FY 83 budget is the engineer continuation bonus. The Air Force developed an Engineering and Scientific Career Continuation Pay (ESCCP) plan designed to reduce the loss of engineering and scientific officers after completion of their initial active duty service commitment. To qualify for this bonus, officers must meet specific eligibility criteria and be performing duty in a critical skill which has a current shortage -- Aeronautical, Aerospace, Astronautical, Electrical, or Mechanical Engineering, and Architecture and Architectural Engineering. Since our greatest loss of engineers is among officers with 4-12 years of service, the bonus is targeted to those year groups. About 1,500 officers will be eligible for ESCCP. Initial estimates are that we will significantly reduce our engineering officer losses in these year groups, thus enabling us to meet our requirements by 1985.

An important incentive which will have a positive impact on the morale and retention of our enlisted force is an initiative for payment of Basic Allowance for Subsistence (BAS) for Career NCOs. Our single NCOs/supervisors in grades E-5 and E-6 are irritated by having to use a government mess while their married junior enlisted counterparts may eat where they choose. Official duties often prevent attendance at regularly appointed meal hours (e.g., aircraft refueling, unloading, emergencies, firefighting, security incidents), and, as a result, the compensation value of subsistence in-kind is substantially diminished by the number of meals that are missed. To provide special recognition and to improve the morale and retention of these highly-skilled NCOs, we are including funds for BAS for E-5s and above in the FY 83 budget.

RETIREMENT

The retirement program is the most vital element in force management and contributes significantly to readiness. The retirement system insures that a trained, experienced pool of manpower will be available for immediate recall during national mobilization. Further, it provides the foundation for a strong system of institutional entitlements necessary to partially offset the extraordinary conditions of military service. The retirement program facilitates personnel management by insuring a young, vigorous force while providing meaningful promotion opportunity. Its effectiveness as our most valuable retention incentive was highlighted in a recent member survey which identified the retirement program as the most important factor in the career decision.

Any degradation in the retired pay system could do irreparable damage to the usefulness of the retirement system as a force management tool. Changes which members perceive to be arbitrary or inequitable will inevitably frustrate the purposes of the system and have an adverse impact on readiness. We must avoid changes which might yield near-term cost savings but are certain to result in increased accession and training costs, declining experience levels and, ultimately, readiness. Because the Services are still suffering from shortages of experienced officers and enlisted members in critical combat operational and sortie-generating skills, we can ill-afford to weaken the retention gains now accruing from recent compensation improvements.

The Air Force supports a strong and stable retirement system. Any changes should result from a deliberate process and should not be supported unless they are based on valid personnel management and force structure requirements. Further, changes should "grandfather" members presently serving and honor commitments made to those currently retired.

PCS REIMBURSEMENTS

The world-wide nature of the Air Force mission necessitates directing thousands of military members to make permanent change of station (PCS) moves each year. We have worked diligently to hold these moves to a minimum. While the number of PCS moves has remained nearly constant, the cost has almost doubled in the past four years. In 1978, the Air Force had 300,000 moves costing $429 million. In 1982, the 310,000 required moves will cost $837 million, a reflection of the increased transportation and moving costs.

The vast majority of these PCS moves are essentially uncontrollable. For example, we must move people entering and leaving the service--about 99,000 will enter and 75,000 leave in FY 83. Further, approximately 90 percent of the 1983 PCS program (322,674) relates directly to accession, separation, training, and movement to and from overseas. The remaining 10 percent relates to operational moves required to sustain the force, necessary training in units, weapon system changes, correction of grade and skill imbalances, and relocation of units to improve combat capability. Today, Air Force members are serving an average of up to 9 months beyond the prescribed overseas tour lengths which means that members serving on a 36-month overseas tour are now averaging 45 months of service. In the CONUS, officers now average 38 months and enlisted members average 32 months between PCS assignments. That is an increase of 5 percent in the CONUS and 17 percent overseas in the last 5 years. We continue to strive for even greater stability and fewer moves.

One aspect of a PCS move presents a problem which sorely needs attention. This concerns the out-of-pocket expenses incurred by our people and their families because we direct them to move to meet Air Force requirements. The lack of adequate PCS travel reimbursements remains one of the most critical personnel issues facing Air Force people today. While several positive steps were taken in FY 81 and FY 82 to increase travel reimbursements, still more is needed to eliminate the estimated $280 million in unreimbursed out-of-pocket expenses paid annually by Air Force members to subsidize government-directed relocations. For example, a staff sergeant moving in late 1980 had median out-of-pocket costs of $1,250; a captain paid out-of-pocket expenses totaling $1,750. A recent survey indicates that nearly one-fourth of the Air Force members who are eligible for retirement would retire in lieu of making any move. This reluctance to move is also reducing the numbers of volunteers for overseas duty. In 1975, 70 percent of overseas requirements were satisfied by volunteers. By 1981, this was down to 26 percent. Failure to overcome the reluctance among military members to move portends diminished retention.

The pivotal factor is the need to recognize that the cost of PCS is a cost of doing business. Our people should not be expected to bear this burden. As first steps to overcome the disparity, the FY 83 budget provides for: an increase in the mileage allowance from 13 to 16 cents per mile for members; an increase in the dependent mileage allowance from 7 to 10 cents per mile for each dependent 12 years of age or older, an increase from 3-1/2 to 7 cents per mile for each dependent 2-12 years of age; and an increase in the household goods weight allowance for E-7s and above (500 to 2,500 pounds per member depending on grade).

In addition, there was one significant compensation-related setback in FY 82 which is affecting the morale, retention, and hence the readiness of enlisted personnel. The loss of per diem equity for enlisted members through a funding restriction in the FY 82 DOD Appropriations Act represents a serious problem in terms of negative impact on morale. The application of this restriction to PCS moves constitutes a step backward in our efforts to eliminate negative compensation. I urge the Congress to completely eliminate this inequity and permit us to restore full per diem equity to enlisted members as soon as possible.

INSTITUTIONAL SUPPORTS/QUALITY OF LIFE:

Military service places unique demands on its people and families. Terms of enlistment, extended tours abroad, 24-hour availability, frequent moves, family separation, possibility of armed conflict, loss of individual freedoms, and compliance with military standards, discipline and law are demands which are an integral part of the military's prime mission -- combat. Service in the military is not predicated on a formal written contract or work rules as in the civilian sector. The military member accepts, as a condition of service, that the institution will provide for job and financial security, as well as family needs, and will assure that living conditions are reasonably comparable to civilian life. The military Services provide for these needs through commissaries, exchanges, housing, dining halls, medical and dental care, morale, welfare and recreation programs, and retainer pay in the form of retirement entitlements. These are not social programs in the civilian sense, but are institutional elements integral to military service which free the member of concerns regarding family members and future security. The Air Force is demonstrating to its members that their quality-of-life needs are being taken care of, and our members, in turn, dedicate their full attention to mission requirements.

Health care is an important element of institutional support. We must update our equipment and facilities and improve levels of support for health care providers, including staffing in critical health care specialties. High-quality health service is needed for Air Force members and their families. The family practice concept and the ability to provide dental care for family members are examples of the kind of quality care which is necessary. Currently, dental care for family members of our active duty people is very limited at a time when the private sector has expanded dental care coverage. Accordingly, we considering a legislative proposal providing for preventive and basic restorative care for eligible family members.

The institutional supports I have just covered are important elements of the military way of life and viewed as such by our service men and women. Experience has shown that any attempt to reduce or eliminate these institutional programs has a severe, detrimental impact on recruiting, retention, and readiness, and undermines those values which we know from experience are essential for success in combat. We cannot and should not expect military members to subordinate themselves to the organization and its mission, to remain available for duty 24 hours a day, and to risk their lives in combat unless we, in turn, assure them that their family needs are taken care of.

EDUCATION ASSISTANCE

The Vietnam Era GI Bill was terminated 31 December 1976 and replaced by a contributory program, the Veterans Educational Assistance Program (VEAP). Because of its contributory nature and low benefits, VEAP has proven to be a poor recruiting incentive for the Air Force. We believe that in order to meet the long-term Air Force and DOD manpower objectives for the mid-1980's and beyond, a new education program will be necessary. The program which will best meet our needs for recruiting and retention will apply to all personnel and provide a noncontributory basic benefit, a second tier, noncontributory transferability, Selected Reserve coverage, and a provision for conversion by personnel currently on active duty. Until such a balanced program with a common, constant benefit can be developed and agreed upon by all the Services and OSD, we favor continuation of the VEAP.

The recruiting incentive aspect will improve the quality of initial enlistees, thereby reducing attrition and increasing both the number and quality of personnel who reach the reenlistment point. The second tier of benefits should influence many high-quality, experienced personnel to remain in the Air Force. The transferability feature is also an important retention feature since surveys and interviews with officers and airmen in the field confirm that the option to transfer the benefit to dependents would be a very effective career incentive. Additionally, the current 1989 deadline on use of the Vietnam Era GI Bill will increasingly hurt retention as personnel leave the service to use their benefits. The deadline should be changed to "t[illegible] years after release from active duty."

AIR FORCE FAMILY SUPPORT

We fully recognize the important impact the family has on the Air Force mission. The job morale of our married members and their career decisions are directly related to the support they receive from their families. Recognizing the important role families play in the mission, the Air Force is now working hard to build adequate and effective family support programs. The 1981 Air Force Family Action Plan contains many initiatives to improve support for Air Force families.

One of the most important of these initiatives is the fielding of base-level Family Support Centers. These centers provide a focal point for families at each installation, providing one-stop information referral and assistance. Five prototypes are now in operation at Kadena, Moody, Travis, Bitburg and Los Angeles. Our efforts to date have had a strong and favorable response.

UNDERGRADUATE FLYING TRAINING

Undergraduate pilot and navigator training is the heart of the Air Force. As you know, during fiscal years 79 and 80, we lost 6,200 pilots and 2,800 navigators--but only trained 2,600 pilots and 1,200 navigators during this same period. These low-training rates reduced the pool from which we build our experience levels. It is vital, therefore, that we maintain flying training rates at a level which will balance these rates against actual requirements. While maintaining these rates is vital, we are also working to improve training techniques and equipment.

We currently train all fixed wing student pilots in the T-37 and T-38 training aircraft. Presently all students receive essentially identical initial training which is a compromise between fighter, attack, reconnaissance (FAR) and tanker, transport, and bomber (TTB) requirements. Numerous independent studies have concluded that for training tailored for the specific final system, the FAR or TTB are both more efficient and more cost effective. Therefore, in FY 86, the Air Force will implement a Specialized Undergraduate Pilot Training (SUPT) program which will produce a better-trained and better-motivated pilot, reduce the cost of pilot training and conserve fuel. It will also extend the useful life of the T-38 trainer aircraft beyond the year 2000. Acquisition of 225 TTB trainers required for SUPT is less expensive than buying the 650 plus T-38 replacements which would otherwise be needed.

The aging T-37 fleet, a 1950's vintage aircraft, must be replaced because it is operationally deficient and numerically insufficient to meet future training requirements. The Next Generation Trainer (NGT), the T-37 replacement, will greatly enhance our pilot training capability. We therefore ask your support for continued funding.

SKILL TRAINING

In the period immediately following the Vietnam Era, many enlisted training programs underwent reductions. We survived on a heavy experience base through the mid-70s, a period when the force was drawing down and we were bringing aboard fewer new recruits. Now much of that experience base is gone, and, as the force builds, the numbers of new recruits who need training is much greater. Training programs were unable to keep pace with requirements from 1979 through 1981. Our field commanders stated that while the skill training being given was effective, there was not enough of it and they were having to divert experienced people from mission requirements to conducting additional training. Our FY 83 budget contains funds for much-needed improvements in training for technical skills and increases in course length, particularly in flight line and sortie-producing skills. Reports of the GAO, the Defense Audit Service and the Air Force Inspector General link many readiness problem areas to deficiencies in training.

DRUG AND ALCOHOL ABUSE CONTROL

Air Force policy is to prevent drug and alcohol abuse, rehabilitate abusers and restore effective functioning, and to separate those who cannot or will not be rehabilitated. Both the Secretary and the Chief of Staff have reemphasized the Air Force's intolerance of drug abuse. We have comprehensive awareness and education programs coupled with aggressive identification procedures and effective treatment for members with problems. Our program emphasizes supervisory responsibility, education, prevention, identification, treatment and rehabilitation, and appropriate disciplinary action. We have reviewed accession policies to ensure consistent application of drug abuse standards and close screening of all recruits for current drug or alcohol abuse. Moreover, noncommissioned officers are now under the same retention standards as officers with regard to drug abuse -- that is, retention is not appropriate. Our efforts have been successful in achieving lowered levels of drug abuse. This was highlighted during the following House Committee

Hearings: The House Committee on Appropriations Subcommittee on Defense, 1 Apr 82 and the House Select Committee on Narcotics Abuse and Control, September 1981. Both committees singled out the Air Force for effective programs and low abuse rates.

EQUAL OPPORTUNITY AND HUMAN RELATIONS

The Air Force continues to make significant progress in these areas. Since 1974, racial incidents have dropped 62 percent and discrimination complaints are down 80 percent since 1977. Minority representation is rising. Black representation in the enlisted force was 16.8 percent in FY 81 and Black officers reached 4.9 percent, up from 2.7 percent in FY 75. Regarding sexual harassment, Air Force policy is simple and was stated to the force in a joint memorandum from the Secretary and the Chief of Staff in the following words: "Sexual harassment is unacceptable conduct and will not be condoned or tolerated."

The Air Force is proud of its record regarding the utilization of female personnel. Since the start of the All-Volunteer Force, the number of women on active duty in the Air Force has increased by nearly 400 percent (from 16, 495 at the end of FY 72 to 63,995 at the end of January 1982). Women now comprise 11.2 percent of the active force, the highest level of representation in any service. A steady expansion of female assignment opportunities has occurred since 1973 and all officer career fields are now open to women. They do not, however, perform some duties because of combat restrictions. For example, women are tanker and airlift pilots, but they do not fly fighters or bombers. The number of enlisted specialties in which women are not utilized has been reduced to five which are directly combat-related. Overall, 98 percent of all skills and 90 percent of all authorizations are open to Air Force women. A significant increase is planned in the number of women in the Air Force to an estimated total of 75,800 by the end of FY 88. The Air Force expects to retain its leadership position in the rate of female representation and in providing competitive career opportunities to military women.

IV. CIVILIAN PERSONNEL MANAGEMENT

Air Force civilians perform a broad range of defense tasks including supplying and maintaining aircraft and other weapons systems, conducting vital world-wide command control communications, research and development, medical care and maintaining and operating our bases. Our personnel management practices are geared toward sustaining civilian employee morale and productivity as they carry out the mission.

Air Force civilians are a critical part of the defense force and they make significant contributions to military readiness. Therefore, they expect and should be entitled to pay, benefits, and working conditions which are comparable to those which they could attain in their profession in the private sector. Programs which impact adversely on their pay and benefits have a detrimental impact on our ability to attract and retain the high quality people necessary to carry out the mission.

STAFFING INITIATIVES

As the result of an Air Force civilian personnel manning system study conducted in 1977 and 1978 by the Air Force Office of Civilian Personnel Operations and the Air Force Inspector General, we are increasing the timeliness and quality of staffing civilian positions. The key element is a Base-Level Staffing Plan at all local civilian personnel offices to provide a single, cohesive approach. It provides a single employment document that incorporates the dynamics of the total employment situation with meeting the goals of mission and special employment programs.

We are establishing an Air Force-wide computerized skills bank; eliminating unnecessary procedural requirements that inhibit staffing timeliness; automating tracking of the time required to fill positions; reassessing and revitalizating training activities; and placing special emphasis on staffing activities in the program evaluation process.

CIVILIAN ENGINEER SHORTAGE

Our requirement for civilian engineers has increased 18½% over FY 79 and we are now 1700 short of our needs. However, we are making good use of recruiting authorities obtained from the Office of Personnel Management (OPM), expanding internal engineer recruitment activities, and improving relationships with colleges and universities to develop better sources of qualified engineer candidates. We are also developing a more formal centralized recruitment effort in the Air Force and expanding our internal program. We must continually improve because we know that private sector competition for these and other highly-skilled people will increase.

ENHANCED CIVILIAN WORK FORCE EFFICIENCY AND EFFECTIVENESS

The Air Force has supported and aggressively implemented the performance appraisal and supervisory probation requirements of the Civil Service Reform Act of 1978. Senior executives were brought under the new system in October 1979. The appraisal system for general managers under the Merit Pay System began in October 1980. All remaining employees are covered by the new job-based appraisal system which started 1 Oct 81. Early indications are that these new systems are working and increased efficiency and productivity will result.

We implemented the special probation period for supervisors during FY 80 and FY 81 with 5,163 supervisors and 292 managers placed on probation. Of these, 268 supervisors (5.5 percent) and 18 managers (6.1 percent) did not successfully complete probation and were returned to nonsupervisory positions or otherwise left the supervisory job. This is evidence that the program is working as intended.

Civilian work force effectiveness is also enhanced by our continuing efforts to prevent, reduce, and correct abuse of alcohol or drugs. Our civilian drug and alcohol abuse prevention program is similar to the program for military personnel. It stresses education, counseling, referral services, and rehabilitation. Other corrective actions, including removal, are taken when rehabilitation fails.

All newly appointed civilians are now given an Air Force pamphlet that spells out in simple language what is expected of them in terms of personal conduct, work place discipline, and obligations. All these initiatives are designed to sustain and enhance a civilian force that will continue to effectively support the mission.

PAY CAPS AND CEILINGS

Congressional action in December to increase the pay cap to $58,500 for our SES employees and $57,500 for General Schedule employees provided welcome relief. However, past experience leads us to believe that unless there is positive action to separate Congressional salary increases from those of other Federal employees, the relief will be short-lived. Present law (PL 94-82) provides for Executive and Congressional increases at the time of the General Schedule increases each year in October. We strongly support legislation which will de-link Congressional and other Federal Executive pay increases, and, at the same time, establish a different set of indices upon which to base Congressional salaries. This recommendation surfaced during the hearings on the "Federal brain drain," and we believe it is the solution to this long-term problem.

SENIOR EXECUTIVE SERVICE (SES) BONUS RESTRICTIONS

I am concerned about the restrictions on our Senior Executive Service performance awards. Bonuses have long been recognized as a motivational tool in the private sector. In order to be most effective and to encourage outstanding peformance, bonuses must be attainable by a large enough portion of the population to make the performance message clear. The Civil Service Reform Act of 1978 authorized payment of bonuses to a maximum of 50% of authorized positions. In FY 80, bonuses were restricted to only 25% of an agency's authorized positions. In FY 81, this figure was lowered to 20% and applied only to eligible career employees. The Air Force supports restoration of bonuses to 50% of authorized positions to restore motivational effectiveness.

COMPARABILITY AND THE NEED FOR PAY REFORM

The Air Force has consistently supported the principle of pay comparability for civilian employees. This principle is established in law, however, other laws and practices conflict with it, causing us to depart from comparability in many situations. For example, there are four major provisions of the current blue collar pay law which negate the principle of comparability and, hence, need change:

- The step rate structures for nonsupervisory/leader rates result in Federal pay being as much as 12% over local prevailing rates.
- The Monroney Amendment requires the government to establish "local" prevailing rates using wage data imported from different areas of the country when there is a "dominant" Federal industry in a particular locality, e.g., aircraft overhaul and repair. At Robins AFB, Georgia, for example, this results in increased costs of over $27 million per annum.
- There is a provision which prohibits the inclusion of wage data from state and local governments despite the fact that they now employ approximately 13% of the national work force.
- There is a requirement to pay uniform percentage night shift differentials of 7½% and 10% for second and third shifts despite the fact that this is not in conformance with practices followed in the private sector.

The Administration sent proposed legislation for Federal Civilian Compensation Reform to both houses on 24 March 1981. This legislative proposal provides the means of remedying these undesirable aspects of setting blue collar pay which results in a departure from the principle of comparability. Because of certain Congressional concerns, however, the President has stated in his FY 83 Budget message that he is withdrawing his pay reform proposal for further study, but will resubmit it for consideration for FY 84. We believe this new study will once again support the need for reforming those aspects of blue collar pay law just mentioned.

BENEFITS

We believe that civilian pay, retirement, health benefits, and PCS travel entitlements are eroding to the point where the objectives of fiscal economies may be more than offset by the adverse effect on civilian recruitment, retention, mobility and efficiency. Some current proposals to change the Civil Service retirement system will achieve economies and improve program administration. Other changes, however, will cause inequities to retirees and their survivors. Recent changes in the health benefits program have resulted in reduced health care coverage along with increased costs for our civilian force.

Another area requiring attention is our need to have a civilian force that is mobile to the degree required to meet mission requirements. For several years, however, the Air Force and other Federal agencies have experienced difficulty in inducing civilians to relocate. A study of civilian relocation allowances has been conducted and recommended changes are currently under review.

Civilian pay and benefits need to be addressed not just in terms of fiscal restraint, but in terms of the effect on maintaining the high quality civilian force we must depend on to meet mission requirements.

AFFIRMATIVE ACTION

We have had a successful year in increasing the number of minorities and women in the civilian work force. Minority employment within the Air Force increased from 19.84% to 20.66%, and the number of women employed increased from 33.3% to 34.3% during the past year. Minorities and women are integrated throughout our grade structure. Their numbers in grades GS 9-12 (our middle management positions) increased this past year as did the numbers in supervisory and senior positions at grades GS-13 and above. Our success is based on a management philosophy that requires the integration of equal employment opportunity requirements into our total recruitment and staffing processes. All people, regardless of their sex, race, age, religion, handicap or national origin, receive excellent training and have the opportunity to aspire to and achieve their highest potential.

SENIOR GRADE REDUCTIONS

The FY 78 Defense Appropriation Authorization Act required a six percent reduction, over a three-year period, in grades GS-13 to GS-18. The time period was subsequently delayed until 30 September 1982 and last year Congress repealed the full six percent reduction provision. The Air Force appreciates the action taken by the Congress. With or without the statutory controls, the Air Force through a positive position management program has always maintained the leanest senior grade posture in relation to total GS strength. The present percentage of senior grade positions, 9.2%, is the lowest of the Services. We will continue this effort and assure you that the absence of a statutory control will not cause any unjustified increase in civilian senior grade resources in the United States Air Force.

V. MANAGEMENT IMPROVEMENT INITIATIVES

We have always been proud of the everyday good management and high standards reflected in the Air Force. For years, Air Force people have been leaders in training, management innovation and either creation of, or acceptance of, new concepts. While effective, aggressive and economical programs are always important to the Air Force and the public it serves, they are uniquely critical at this time. On 8 December 1981, Secretary of the Air Force Verne Orr announced a new Air Force-wide initiative, the Integrity and Management Improvement Program, a program described as "an umbrella for many existing oversight, cost awareness, and incentive programs, adding new management emphasis and crossfeed to obtain efficiencies at all levels of the Air Force."

Personnel managers throughout the Air Force fully support the initiative announced by Secretary Orr and will continue to take their responsibilities very seriously and personally. They can also look back with pride at the actions they have already taken to improve management of Air Force resources. A few representative examples follow:

During 1981, Air Force people submitted 93,000 suggestions saving more than $107 million. Since 1973, the Air Force Suggestion Program has produced a ratio of dollars saved to dollars spent of 19-to-1.

The Productivity Investment Fund (PIF) Program buys or leases equipment and facilities valued at $100,000 or more with a four-year payback. Since the program began two years ago, twenty-three PIF projects with life-cycle savings or cost avoidances of $734 million have been approved by OSD. These projects are expected to generate a return on investment of over 6-to-1.

The Fast Payback Capital Investment Program (FASCAP) provides money for equipment valued at less than $100,000 with a two-year payback. In 1980-81, 275 FASCAP projects with more than $60 million in life-cycle savings were initiated. These brought a return on investment of 7-to-1 for the Air Force.

In FY 81, through the Reserve Recall Program, we recalled to active duty 247 pilots, 74 navigators and 49 support officers whose training would have cost the Air Force an estimated $446 million to attain the same level of experience.

In FY 81, we also accessed more than 3400 enlisted members with prior service who were directly assignable without basic or technical training; thereby avoiding approximately $41 million in training costs.

We implemented procedures to improve Civilian Personnel resource utilization through actions such as development of an Air Force-wide system to hire and reassign people between bases using a new data subsystem. For outstanding management of personnel information through its automated Personnel Data System - Civilian, the Air Force received the Office of Personnel Management Federal Productivity Award.

Air Force recruiting cost per accession in 1981 was the lowest of all the Services and 43% below the DOD average. Our recruiting objectives for FY 83 will increase by nine percent, yet we are requesting only one percent growth in the budget to handle this workload.

Several programs were implemented to reduce PCS costs and turbulence (e.g., more than 24,000 individuals are currently serving on voluntary extensions of their overseas tours). Another program considers PCS costs in determining the stateside assignment for personnel returning from overseas and results in annual PCS cost avoidance of about $2.4 million. Other PCS initiatives have resulted in cost avoidances of approximately $70 million in the Air Force travel program in the last five years.

The Personnel Data System (PDS) has been the most significant factor changing Air Force personnel support over the past 20 years. The PDS has improved the flow of information between management levels and provided better access to information for decision-making. In implementing the PDS, the number of base-level personnel offices was reduced from 2,700 active duty military personnel offices to 124 today. Active duty military personnel staffs were reduced by 57% while the active force was reduced only 35% during the same period (1960-1980).

And as mentioned earlier, our cost comparison programs for FY 80 and FY 81 have resulted in 148 conversions to contracting which have saved over $194 million.

The sense of pride and responsibility embedded in our people has produced and will continue to produce real savings, lowered costs, and increased capability to do our job. We continually reevaluate the work place and the job; remain alert for and open to innovation; and accept no less than top performance. In summary, the Air Force is fully sensitive to our responsibility to the Nation to spend our allocated resources efficiently.

VI. CONCLUSION

In conclusion, Mr Chairman, and members of the Committee, as we face budget pressures, let's not cut pay for short-term gains. As Napoleon said, in war the morale is to materiel as three is to one. Let's fight to maintain this force. We are looking forward with optimism to the period ahead; the 80s and 90s present challenges for manpower and personnel management. We are confident that, with your continued help, the United States Air Force will succeed in attracting, training and retaining the skilled men and women we need. For our part, you may be assured that we will continue to aggressively pursue improved management methods and to insure that our programs are sound and cost effective.

INCENTIVE PAY PROGRAM

General **Iosue**. The Air Force agonized long and hard as to which program we should take over the long term, whether it be the bonus, lump-sum payment, versus the increase in aviator career incentive pay. We opted for the incentive pay for a number of reasons. We didn't have the acute shortage that the Navy and the Marines had. We felt the aviator career incentive pay was necessary as the best and most enduring solution to our aviator problems.

We did offer a 30 to 35 percent increase.

The problem in evaluating the effectiveness of the bonus versus the increase in incentive pay is the environmental change. The airlines are hiring at a rate of 800 to 1,000 a year. They normally hire at a much higher rate; 80 percent of all their pilots come with military experience and 65 percent of them have worn an Air Force uniform.

The depressed hiring rate is not going to last forever. It may last for 1 more year, but then it should go up. We anticipate it will increase to between 1,700 and 2,000 per year. Again, the airlines will come knocking on the door of DOD looking for pilots. They don't train their own pilots.

In addition, we didn't have the increase in pay, and we didn't have the depressed economy we have now.

We must wait and see before we can evaluate the effectiveness of the aviator career incentive pay and the aviation bonus.

Senator **Stevens**. I think that is right. I think I can evaluate it right now in terms of the impact on the budget. Yours is an item that comes in the budget on an annual basis and that comes in the budget on a one-shot basis and has a very heavy impact in the years when we have very tight money. If yours is working effectively, I wonder why at least a portion of the people involved in the bonus program for the Navy and the Marine Corps could not have been exposed to the same kind of concept you used to increase flight pay? It is more cost effective over the long run to do it that way as far as the budget is concerned.

General **Iosue**. There is no mix in the Navy and the Marine Corps.

Admiral **Zech**. There is a mix. You can be on either the aviation officer continuation pay or on increased flight pay, but you cannot be on both.

Senator **Stevens**. Did you consciously deny one portion of your people the bonus incentive? That is what we are saying.

Admiral **Zech**. We offered them the choice to stay on the aviation continuation bonus pay or increased flight pay.

Senator **Stevens**. How many took the increased flight pay?

Admiral **Zech**. Most of them took the officer continuation bonus.

Senator **Stevens**. How many took the increased flight pay?

Admiral **Zech**. Some who did not want to make the commitment that the bonus calls for.

General **Bronars**. We had 1,874 aviators eligible for the AOCP within 6 to 15 years of flying experience. Out of 1,874, 1,764 either are receiving or have applied for the bonus. That will give you a handle on it.

Senator **Stevens**. Seventeen hundred out of 1,800?

General **Bronars**. Eighteen hundred seventy-four aviators were eligible; 1,764 are receiving or have applied for the AOCP.

Senator **Stevens**. What about the continuation bonus?

General **Bronars**. That is the continuation bonus.

Senator **Stevens**. What about the other one?

General **Bronars**. I would presume the other 110 are getting the aviation career incentive pay.

Senator **Stevens**. If I were you, I would send them to school to learn a little mathematics. If it was available, no one should turn down the bonus, just in terms of simple mathematics. Maybe there is another reason. I don't quite understand what you say about the commitment.

Admiral **Zech**. In order to get the bonus as we have it structured, most of our young pilots must commit themselves for 4 years obligated service.

Senator **Stevens**. Can't you commit for just 2?

Admiral **Zech**. You can commit for 2 or 3 or 4.

Senator **Stevens**. And get the bonus?

Admiral **Zech**. And get a lesser bonus amount for a shorter commitment.

Senator **Stevens**. What is the commitment if they get the increased flight pay?

Admiral **Zech**. There is none. There is no commitment at all for increased flight pay. We needed the commitment in the Navy, just as the Air Force judged they did not need the commitment.

Senator **Stevens**. If my term of service is over and I am a Navy pilot and I am going to stay on, can I stay on for just 6 months or a year?

Admiral **Zech**. You can stay on as long as you want to.

Senator **Stevens**. As short as you want to?

Admiral **Zech**. Yes, sir, after you have finished your obligated service, you can stay on as long as you want to—until you reach 30 years or your statutory retirement.

Senator **Stevens**. I did not understand that you did that with your trained personnel like pilots. I thought there was a specific term of years.

General, do you have any assurance how long you are going to keep this early 100 percent complement of your pilots?

General **Bronars**. We do it by a variety of means. One of them is to maintain high morale through inspirational leadership.

Senator **Stevens**. Not another bonus? You say you are not going to give them another bonus?

General **Bronars**. We say we are going to be healthy as we enter fiscal 1984, or nearly healthy. At that time maybe we can take the bonus off, and we will so recommend if that is the case.

Senator **Stevens**. Neither one of you recommends a repeated bonus for people who got them now for 2 or 4 years; you are not contemplating you are going to have to offer them a bonus at the end of that period?

General **Bronars**. As I look ahead 4 years with a sense of confidence, I don't think that individual will be getting it.

Senator **Stevens**. How many of yours got the 2-year bonus and how many the 4?

General **Bronars**. Out of 1,059 pilots in fiscal year 1981, 682 had 4-year commitments; 126 had 3 years; 128 had 2 years; and 123 had 1 year. So far in fiscal year 1982, out of 366, 256 are 4-year commitments. That gives you a handle on the majority being 4-year obligations.

Senator **Stevens**. Did you give them to navigators, too?

General **Bronars**. Yes, sir, we gave them to NFO's.

Senator **Stevens**. Your retention rate was not down there?

General **Bronars**. When we started the AOCP, the Marine Corps had a shortage in pilots of 18 percent and a shortage in NFO's of 15 percent. Now we have a shortage in pilots of 5 percent and a shortage of NFO's of 13 percent. NFO's are critical to us; they serve in the same environment; they replace pilots in billets other than being in the cockpit. We felt that we had a shortage in NFO's that justified placing them on the bonus program, and I disagree with Dr. Coffey.

FLIGHT PAY COSTS

Senator **Rudman**. General Iosue, the Air Force opted to go the flight pay route. What does that amount to in dollars incrementally?

General **Iosue**. About $138 million per year. I think the 1983 budget request has about $150 million.

Senator **Rudman**. For the entire United States.

General **Iosue**. For all.

Senator **Rudman**. What does that amount to for individual pilots, captain or major, approximately?

General **Iosue**. In terms of the increase?

Senator **Rudman**. Yes.

General **Iosue**. He receives up to a $94 increase in his monthly flight pay, depending on years of aviation service or total Federal-commissioned service.

Senator **Rudman**. What were your shortages at the end of the past year?

General **Iosue**. When the bonus was made available to us, we started out with a 2,000 deficit. We are now down to 1,100 pilots short.

Senator **Rudman**. Of course, you have many more pilots than the Navy or the Marine Corps?

General **Iosue**. We have 24,500 pilots and 10,500 navigators, including colonels and generals. I believe the Navy has 10,000 pilots.

Senator **Rudman**. I think there is a lesson to be learned from these two stories. I am not sure at this point what the lesson is, but it certainly does seem to me that you can get one set of figures to prove one thing, and you have these facts over here. Maybe you have a different problem in the Navy and the Marine Corps. Maybe these Air Force pilots are at home bases and their families are there. Maybe that has something to do with it.

I have spent time on the carriers and I understand it is tough duty. They are away a lot. Marine pilots many times are deployed in areas where they can't have their families. Maybe there is a relationship.

Senator STEVENS. Gentlemen, we had a report that was due on April 1. I would appreciate it if we could have it no later than June 1. We are going to be marking up this bill very soon after that. I think we are entitled to that report. If we cannot get it, we will just have to submit some specific questions and ask you to come back and get on the record again to give us the specific answers, because we are going to have to answer some of the questions.

Again, I am not going to attempt to reduce this bonus program this year. Some of these others we are going to have to reduce. I think Congress voted to try it and 2 years may be required to see what the track record is, but by the end of that 2 years we are going to be looking at the results in terms of what the training costs are.

Thank you very much, gentlemen.

SUBMITTED QUESTIONS

Before we recess I will ask that the questions which have been submitted to the Department be answered for the record.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

ADDITIONAL COMMITTEE QUESTIONS

AVIATION BONUS

QUESTION: Dr. Korb, the GAO has concluded that the Navy paid $53 million in FY81 to about 3600 aviators whose year to year continuation rates historically meet or exceed 90 percent. Is the GAO correct?

ANSWER: Bonus payments were in fact made to aviators with continuation rates above 90 percent in order to achieve the maximum possible retention from Navy's critical shortage area, the mid-grade (03-05) aviator. The decision to establish bonus eligibility over the entire critical shortage window (6th through 15th years of service) was made in order to achieve the most expeditious, cost effective recovery from the severe aviator shortage (2350 aviators at end FY81). Despite the eligibility window targeted for the entire critical shortage area, Navy will not achieve recovery from its aviator shortage before fiscal year 88/89 for pilots, fiscal year 84 for NFOs.

The decision to extract the maximum possible retention from the 9th through 15th years where continuation rates are above 90 percent is cost effective considering pilot training costs of $850K and NFO costs of $650K. Navy studies show that over a five year period from fiscal year 83 to 87, an additional 146 pilots and 40 NFOs will be retained by paying the bonus from the 10th through 15th years. These retained aviators represent a training replacement value of $150 million for an aviation bonus cost of $46.4 million.

Aviation Officers Continuation Pay

QUESTION: Dr. Korb, we've been told that your own staff recommended against this bonus going to the Marine Corps. The decision to award a Marine Corps bonus was made, however, because the Navy receives the bonus. Did your staff or did you personally recommend the bonus not go to all Navy and Marine Corps aviators?

ANSWER: The Department of Defense decision to support Aviation Officer Continuation Pay for the Department of the Navy was made just prior to my becoming the Assistant Secretary. The OSD staff analysis, I understand, was relatively comprehensive in that it examined both Navy and Marine Corps current and projected requirements for aviators by aviation community, the current and projected supply of people to these communities, and the effects of alternative levels and payment patterns of the bonus on the ability of the Navy and Marine Corps to meet its projected requirements in these communities. The analysis suggested a stronger case for the payment of a bonus in some aviation communities than in others. The initial, internal, staff recommendation was to modify the payment plan recommended by the Department of the Navy to achieve greater differentiation in the payments both by aviation community and by years of service. However, it was argued that this differentiation would create fundamental equity problems and, moreover, that the equity issue would result in a decline in morale and retention in the communities adversely affected. This argument prevailed.

AVIATION BONUS

QUESTION: Navy figures cite an average FY81 pilot continuation rate of 98 percent for those between 9 and 16 years of aviation service. The FY80 rate before enactment of the bonus was 94 percent. Since the critical retention period is 6 - 8 years of aviation service (not 9 - 16) why are 53 percent of bonuses now going to pilots having 9 - 16 years of service (98 percent continuation rate)? How much money have we spent to raise their continuation rate from 94 percent to 98 percent?

ANSWER: The fact that approximately 53 percent of those obligating for the bonus have come from the 10th through 15th years of eligibility is due to the large number of aviators becoming eligible with the initial implementation of the program. As the program continues, the majority of the new contracts will be aviators entering the window at the 6th year of service point. Since implementation of the bonus on 1 July 1981, 90 percent of the aviators eligible (over 6650) have contracted for the bonus. 3230 contracts have come from those aviators in the 6th to 9th year window.

Approximately $35 million of the $77 million committed for FY81 AOCP contracts is payable to aviators in the 10th through 15th years of service. The replacement value of $487 million for the 489 pilots and 110 NFOs retained in FY81 demonstrates the cost effectiveness of the bonus plan.

QUESTION: Congress specifically directed DOD to increase discretionary pay and bonuses from 1981 to 1982 pay rates only if they justifiably require an increase. The aviation bonus was increased to 1982 rates in March. With average FY81 continuation rates of 94 percent for Navy pilots, 95 percent for Naval Flight Officers, 91 percent for Marine Corps pilots and 90 percent for Marine Corps flight officers, why was the bonus amount increased?

ANSWER: Navy has closely followed Congressional guidance concerning utilization of FY82 pay rates. Prior to requesting OSD approval to increase aviation bonus payments to FY82 levels, Navy reviewed retention gains which could be anticipated by using the higher rates. Results of this review projected an additional 21 aviators (18 Navy, 3 Marine Corps) would be retained in FY82 as a result of utilization of the FY82 rates. The training replacement value of $14.6M for the 21 retained aviators far exceeds the additional $700,000 in AOCP payments required. The additional aviators retained combined with the large cost avoidance projected, justified the increase to FY82 pay scales for Aviation Bonus Payments. OSD approval for an increase to FY82 pay rates was obtained 19 March 1982. Bonus contracts effective 19 March or later are computed using FY82 pay rates.

QUESTION: GAO reports that over 400 bonuses have been awarded to aviators with over 16 years of service. Bonus amounts have gone as high as $38,000 for these people who are 4 years away from a lucrative retirement pension. Was the bonus a major factor in retaining these personnel or did they receive a windfall at US taxpayers' expense?

ANSWER: Navy's intent in targeting the 6th through 15th years of aviation service was to achieve the maximum possible retention at the minimum cost of taxpayers' dollars. Reduced bonus payments beyond the 9th year of service recognize the decreased requirement for a bonus with seniority. Bonus payments to personnel with 16 years or more of service would not result in cost effective retention gains and were not intended under Navy's payment plan. A change proposal has been submitted shifting the eligibility window from years of aviation service to years of active service which will correct this bonus payment anomaly.

For example, computing bonus eligibility based on years of aviation service, a LT aviator with 3 years of service prior to entering flight training would have been eligible for the bonus from the 9th through 18th years of service (6th through 15th years of aviation service). Basing eligibility on years of active service would reduce the bonus window to the 9th through 15th years of active service and result in a savings of $17,900 in total bonus payments over the period of eligibility.

PAY AND BONUS ISSUES

QUESTION: Please describe the difference between the method of determining "retention" rates and "continuation" rates.

ANSWER: The retention method tracks groups of officers based on their initial minimum service requirement (MSR). MSR is the initial service obligation incurred by an officer and is determined by commissioning source plus any initial training which imposes an additional period of service obligation. Presently, the obligation incurred by those commissioned through the Naval Academy is 5 years from date of commissioning whereas those commissioned through Officer Candidate School is 4 years. Additional service obligation for training is incurred primarily through pilot, naval flight officer and nuclear power training. For example, those individuals satisfactorily completing flight training, either as a pilot or a naval flight officer incur a 5 year obligation from the date of designation as a naval aviator. This date then becomes the officer's new minimum service requirement. Once fixed by commissioning source, plus any additional service obligation for training, an officer's MSR does not change. Retention of officers is than measured by placing officers in a cohort group whose minimum service requirement is in the same fiscal year. The Navy measures retention of those officers in a cohort group by comparing the number in the group one year prior to MSR (MSR-1) to the number remaining two years after MSR (MSR+2). The MSR retention rate is equal to the number of officers onboard at MSR+2 divided by the number of officers onboard at MSR-1. For example, of the 903 pilots in a cohort group who reached MSR-1 in 1978, 380 pilots were left onboard at MSR+2 in 1981. This yielded a retention rate of 42%.

"Continuation" will normally be measured in terms of the number of officers who continue on active duty after the MSR+2 point and is measured from one year to the next.

AVIATION BONUS

QUESTION: The aviation bonus is supposedly targeted to critical shortages. All aviators in the Navy and Marine Corps however, having 6-16 years of aviation service whether in desk jobs or on flight duty are eligible. What specific criteria were used to designate the entire aviation career as critically short?

ANSWER: From fiscal year 77 to the end of fiscal year 80, Navy experienced the severe loss of 1,000 mid-grade

(03-05) aviators. The total 03-05 shortage is realized both in sea and shore duty flying and non-flying billets. While 75% of the aviators applying for the bonus are serving in flying billets, the remaining 25% are serving in non-flying billets in support of aviation requirements. Following the non-flying tour, these aviators will be assigned to flying billets as part of naval aviation's sea/shore rotation pattern. The aviation bonus was targeted by Navy (to this critically short 03-05 window) to achieve the maximum possible retention gains for the minimum cost. Despite the higher than anticipated retention increase with the bonus (489 pilots and 110 NFOs in FY81) Navy is not projected to recover from its pilot deficit until FY-88/89, FY84 for NFOs. Had the bonus eligibility been targeted to a more restrictive window, recovery from the aviator shortfall would have been delayed into the 1990s.

QUESTION: The issue of equity is used to justify paying all personnel the bonus. How is equity determined when comparing aviators in desk jobs to those on carrier duty?

ANSWER: Equity is determined by the normal aviation sea/shore rotation pattern. The bonus payment window is currently from the 6th through 15th year. During this 10 year period, the average aviator can expect to spend seven of the 10 years at sea and 3 years ashore. During the 3 years of shore duty, the aviator is assigned aviation billets in support of the fleet operating forces including duty as a flight instructor training replacement pilots and NFOs. The aviator at sea realizes that his shore duty contemporary also receiving the bonus is accomplishing a required mission in support of the fleet and will soon rotate back to sea duty.

PAY INVERSION

QUESTION: Pay inversion is also used to justify bonus payments for all aviators. If pay inversion is so important that bonuses have become lifetime career pay -- rather than selective retention tools -- why do most flag officers make more money than do Assistant Secretaries of Defense?

ANSWER: This situation has resulted from the executive level pay caps placed on senior government officials' salaries. In terms of basic pay, flag officers receive less than Assistant Secretaries of Defense--$57,500 versus $58,500. When housing and subsistence allowances, which are not subject to the pay cap, are added to basic pay, flag officers do receive more pay. However, we do not believe that an adverse situation that has been created at senior levels of management because of pay caps should be used to justify pay inversions within the military compensation system. The military and federal civilian personnel systems are fundamentally different, as are the compensation systems used to support them. Military compensation levels must be set and maintained over the long term such that we can attract and retain the necessary number and quality of personnel to meet our military manpower needs. It is important that military pay be competitive with private sector pay and that there be a proper pay balance within the military compensation system. (MP & FM Response)

ANSWER: Pay inversions in any pay structure present obvious problems to personnel managers whether civilian or military. Incentive for advancement is lessened, morale is affected; questions of equitable treatment arise. Ultimately, management must be concerned with the probability of losing the services of employees in a pay structure with inversion who would correctly perceive that continued employment would eventually lead to pay losses. Since flag officers and Assistant Secretaries of Defense have separate pay structures and distinctly different career patterns, it is not surprising that pay differences exists between the two. Within both the Executive Level and flag officer pay structure there are no inversions based solely on rank and years of service, as would be the case for naval aviators. (Navy response)

QUESTION: The Department of Defense requests $3 billion for an 8 percent military pay raise and $1 billion for a 5 percent civilian increase in fiscal year 1983. The Senate Budget Committee reported its budget resolution, however, with no pay raises recommended. In your opinion, Dr. Korb, what is the effect of a pay freese on personnel retention?

ANSWER: The accession and retention problems experienced during the mid-to-late 1970s were in some measure due to the caps that were placed on military pay raises. This situation was rectified by the pay improvements in 1980 and 1981, which restored the competitiveness of military pay. Imposing a cap on the October 1982 military pay raise could be interpreted by the troops as a return to the period of restraint on military pay. The estimates of the impact of a pay cap are dependent upon certain assumptions about the economy and the perceptual filter through which servicemembers view the action.

Compared to the effects of an 8 percent comparability raise, initial analysis using the Annualized Cost of Leaving model indicates there could be as many as 85,000 fewer careerists (DoD totals) at the end of five years if FY 1983 pay levels are frozen at the FY 82 level. A cap at 4 percent could result in 45,000 fewer careerists. This assumes a pay freeze or cap in FY 83, normal increases in the next four years, but no "catch-up" raises in subsequent years.

Recruiting programs would be affected by the decrease in careerists. Based on the decreased number of careerists mentioned above and assuming total strength plans remain unchanged, approximately 215,000 additional recruits over the next five years would be required if pay is frozen; 115,000 if pay is capped at 4 percent. This would increase the recruiting challenge that already exists. For example, in FY 83 there will be more restrictive Congressional restraints on quality, a continuing decline in the youth market, and already programmed significant increases in accession requirements over FY 82. In addition, caps on military pay will decrease the supply of high quality, male high school diploma recruits.

QUESTION: With personnel recruitment and retention at record levels, why is any pay raise necessary? Would readiness be impaired less by equipment budget cuts or by a pay freeze?

ANSWER: The reason that recruitment and retention is so favorable now is, among other reasons, military pay was restored in 1981 to competitive levels with the private sector. Over the long run, competitive pay must be maintained if we hope to make the all volunteer force work. At present, with unemployment rates so high, we may be able to restrain the October 1982 military pay raise somewhat. However, as the economy improves, future military pay raises must restore competitive levels if we are to avoid a return to the adverse recruiting and retention environment of the late 1970's. Readiness will be impaired both by equipment budget cuts and by a pay freeze. Whether one impacts readiness more than the other is hard to quantify. Obviously, since they go hand-in-hand, both are important. Without trained personnel to operate them, equipment is useless, and vice versa, the effectiveness of military personnel is severely reduced with a lack of proper equipment.

QUESTION: The DoD Five Year Defense Plan projects military pay raises at 8 percent, 7.6 percent, 5.5 percent, 5 percent, and 5 percent for FY 83-87. Comparable civilian projections, however, are 5 percent. Why the emphasis on military increases? Won't this policy exacerbate the civilian morale problems in light of continued pay caps?

ANSWER: The figures are projections of pay raises. Decisions about military and civilian pay raises are made each year depending upon private sector pay raises and prevailing economic conditions. Therefore, the actual increases may be more or less than shown in the projections.

We believe there should be no connection between military and federal civilian pay raises. While military and federal civilian pay raises have been linked under law since 1967, we would like to sever that connection permanently to reflect more realistically the fact that they are different personnel systems and thus require different pay raise policies. This has been done on a temporary basis the past two years when, because of military accession and retention problems which did not exist in the federal civilian work force, military personnel received larger pay raises. While there are undoubtedly some federal civilians who resent the larger pay raises received by military personnel, we believe the vast majority, especially in the Department of Defense, understand the reason why military personnel received larger increases the past two years and may require larger increases in the future. We believe the pay raise projections are fair and equitable to both military and civilian personnel and reflect the vastly different personnel requirements of the two systems.

QUESTION: At present, military pay raises are tied indirectly to the white-collar Professional, Administrative, Technical and Clerical (PATC) index, which is used to adjust federal civilian pay. The military services, however, have recommended that future military pay hikes be linked to the Employment Cost Index (ECI), the Labor Department's index for measuring blue- and white-collar wages. Which mechanism, if any, best meets the military service pay requirements?

ANSWER: The Services have recommended that military pay raises be linked to the Employment Cost Index (ECI) and this proposal as well as other alternatives are currently being discussed within the Administration. It should be pointed out that, while the ECI represents the wage movement of about 88 million workers in the country and the occupations in the index cover about 70 percent of the military force, as a practical matter there has been very little difference over the past five years between it and the PATC, which has a much more limited coverage.

Current Pay Issues (1982 Budget)

QUESTION: The FY 1982 DoD Appropriation Bill placed a pay cap on civilian technicians. What savings are expected for FY 1982 and FY 1983? Why did the Administration not request lifting the pay cap in the 1982 supplemental and the 1983 budget request?

ANSWER: We estimate that savings associated with the civilian technician pay cap in FY 1982 will be $250,000 and $300,000 in FY 1983. The Department is currently considering the effects that the pay cap will have on readiness and retention, and we will request any changes when we reach a final position on the matter.

Skill Shortage Proficiency Pay

QUESTION: Congress appropriated $11.4 million last year for the Army's Skill Shortage Proficiency Pay, a new program to pay enlisted personnel in high-technology skills. Yet, the Army has not used the funding for this effort and has cancelled the pay for FY 1983. Why do we see no recission request? How is this funding being used?

ANSWER: The FY 1982 MPA President's Budget included $17.3 million to provide proficiency pay to approximately 11,000 enlisted personnel in high-technology skills. The Congress reduced this program by $5.9 million to a total of $11.4 million.

During development of the FY 1983 Budget, certain actions were required to remain within appropriation controls and to provide adequate funding to high priority issues. Although skill shortage pay in FY 1983 was still important, it did not rank as high as other ongoing programs such as increased NCO content to support modernization. Since skill shortage pay had not yet been implemented in FY 1982, its elimination from the FY 1983 program necessitated cancelling plans to start paying it in FY 1982. The FY 1982 available funds of $11.4 million stayed in the enlisted account to assist in financing the manpower program.

Reserve Officer Training Corps

QUESTION: When a student enrolls in the Reserve Officer Training Corps (ROTC) scholarship program, he incurs an obligation to enlist in the active force should he voluntarily withdraw during his junior or senior year. Does DoD enforce this obligation? How much money is wasted annually on unfulfilled ROTC scholarships?

ANSWER: It is not a large amount. As a condition of accepting an ROTC scholarship, a student must contractually agree to complete his or her education and accept a commission in the Armed Forces. If the individual fails to complete school or drops out of ROTC, that person will serve on active duty in an enlisted status for a period of two years. The contracts specify that the individual incurs the obligation to serve, in an officer or enlisted status, at the beginning of the third year of the ROTC program. PL 96-357 requires obligated ROTC scholarship students to fulfill their military commitment or repay the cost of their education to the government. The Department has implemented PL 96-357 and intends to enforce this obligation.

CAREER BAS

QUESTION: Last year, the Army informed Congress that Career BAS was included in the Army budget at the insistence of the Air Force. According to the Army, Career BAS could have a negative impact on unit cohesion, stability, and training, if enacted. Since $5.2 million is requested for this program, General Thurman, what is the Army's position on Career BAS?

ANSWER: "Career BAS" means that all enlisted personnel would be automatically entitled to Basic Allowance for Subsistence upon promotion to E5. The Army would not implement the "Career BAS" program Army-wide. Rather, major Army commanders would establish common policy for all personnel in their individual commands.

- o There are potential problems with this whole program.
  - Unit cohesion and stability may be harmed if program initiated.
  - Mess operations (ration planning and training/mobilization base) may be harmed if program initiated.
- o The Army would carefully monitor implementation of this program, if funded, to ensure that there is no degradation of unit morale or feeding capability.

The program was included in the Army's FY 82 and FY 83 budget submissions based upon OSD, not Air Force, guidance.

Career BAS for Reserve and Guard Personnel

QUESTION: Does the Department of Defense plan to extend Career BAS to reserve and guard personnel if it is approved for FY 1983? At what cost?

ANSWER: Yes, it would be extended to reserve and guard personnel. The estimated FY 1983 costs are as follows:

	($ Millions)
Reserve Personnel, Army	3.0
Reserve Personnel, Navy	1.1
Reserve Personnel, Marine Corps	.2
Reserve Personnel, Air Force	*
National Guard Personnel, Army	7.2
National Guard Personnel, Air Force	.2
Total	11.7

* Less than $50 thousand

QUESTION: $25.4 million is included in the legislative contingency fund for enlistment ($2.5 million) and reenlistment ($27.9 million) bonuses for the Individual Ready Reserve. If authorized, why should we fund them?
(the reenlistment bonus had so few takers, it was terminated for FY 1982)

ANSWER: The FY 81 IRR bonus program obtained 6,618 reenlistments. Fully 80% of these reenlistments were obtained after there was a decision to terminate the program at the end of FY 81. Reinstatement of this program is an essential portion of the comprehensive legislative proposal submitted to Congress on April 7, 1982, to completely eliminate the pretrained manpower shortages. This proposal would extend the military service obligation from six to eight years as the long term solution. In the interim period a reenlistment bonus program is needed to significantly increase strength until the effects of an extended service obligation are fully realized. The Army is also planning an IRR direct enlistment program whereby individuals may join the IRR, undergo basic training, and return to the IRR to complete their military service obligation and participate in periodic refresher training. This proposal was tested in 1979 and was determined to be a viable enlistment option. This proposal also includes an enlistment bonus to insure the success of this option.

With this combined approach we believe the pretrained manpower problem can be solved by the late 1980's.

QUESTION: The Department of Defense made a policy change as of September 1, 1981, so that officers receiving flight pay (Aviation Career Incentive Pay-ACIP) could also receive hazardous duty pay. Flight pay and hazardous duty pay are now received simultaneously. What is the cost of this decision for FY 1982 and FY 1983? Why was the decision made?

ANSWER: A policy change, effective September 1, 1981, authorized the simultaneous payment of Aviation Career Incentive Pay (ACIP) and Hazardous Duty Incentive Pay (HDIP) in cases where eligibility for HDIP is clearly established. The decision to change the policy was considered to be necessary and within the legal authority to pay HDIP.

Within the Air Force, the additive cost of paying certain officers HDIP, in addition to ACIP, for FY 1982 and FY 1983 will be $81,000 and $91,000 respectively. This policy change primarily affects approximately 65 AF rated officers who are assigned as Air Liaison Officers (ALOs), Forward Air Controllers (FACs), and Tactical Airlift Liaison Officers (TALOs) attached to Army airborne units and required to make frequent parachute jumps.

ALOs, TALOs, and FACs are assigned to Army airborne units to advise and assist the Army ground commander in the efficient use of Air Force tactical airlift and fighter support and are required to make frequent parachute jumps in the accomplishment of their unit's mission. It is absolutely essential that these individuals be rated aviation officers in order to provide the ground commander with the depth of expertise required. Since these officers are required to deploy with the Army unit, they must maintain jump proficiency. As a result, these officers are entitled to ACIP and HDIP because they are engaged in aviation service on a career basis and because they are required to perform frequent parachute jumps in the performance of their unit's mission.

Providing HDIP to ALOs, TALOs, and FACs is a simple, yet effective way to induce highly qualified officers to volunteer for these duties. Prior to the policy change, the AF personnel managers had difficulty filling ALO, TALO, and FAC billets and most incumbents were nonvolunteers. Most rated officers perceived those assignments as less desirable for several reasons. First, when assigned to ALO, TALO, or FAC duty the officer feels removed from the "mainstream" of the Air Force. Moreover, the officer is required to perform these jumps knowing that there is a possibility of injury that could result in medical disqualification from ACIP as well. The ALO, TALO, and FAC positions require dedicated officers who are highly experienced and committed to the mission. While it is still too early to determine impact of the policy change, personnel managers have acknowledged that payment of HDIP should help as an added inducement to encourage personnel to perform these duties. In summary, providing the HDIP is a cost effective way to insure that ALO, FAC, and TALO positions are filled by experienced, knowledgeable volunteers.

The Army commenced payment of the entitlement to 285 personnel in the 82d Airborne Division in previously validated slots simultaneously performing aviation and parachute duties. Eligible officers have been performing the dual duties for years, but only being paid as aviators. The additional HDIP cost for FY 1982 and FY 1983 is $376,200 annually.

For Navy implementation of the policy change which allows a limited number of officers to receive simultaneous payments of ACIP and HDIP will cost an additional $1,267,000 in both FY 1982 and FY 1983 for 960 aviators out of a community of 17,000.

The decision to allow officers to receive simultaneous payments was based on the fact that some aviation officers are required to spend a large amount of time in flight deck operations, which would normally qualify for extra hazardous duty pay. Since ACIP and HDIP are separate entitlements, performance of duties in aviation/flight deck operations should not preclude simultaneous compensation where performance of these dual responsibilities are required.

The exact cost of this policy change to the Marine Corps is not readily available. However, it is estimated to be less than $10,000. The Marine Corps has budgeted ACIP for 5,328 and 5,542 officers in fiscal years 1982 and 1983 respectively. For the same fiscal years, Parachute Jumping Pay and Demolition Pay have been budgeted for a total of 116 officers. It is estimated that not more than 10% of the officers receiving either Parachute or Demolition Pay are also in receipt of ACIP.

The Marine Corps concurred with the policy change in that it was considered inequitable to restrict officers from receiving HDIP simply because an individual was in receipt of ACIP.

Selective Reenlistment Bonus Program

QUESTION: Reenlistment bonuses are now paid 50 percent up front, and 50 percent in equal increments over the length of the reenlistment. This policy change was enacted by Congress in order to reduce outlays and increase recoupment of unearned portions of bonuses. To date, how much money has been recouped?

ANSWER: Recoupment of reenlistment bonuses has not been a significant problem. DoD-wide, only about 1% of the reenlistment bonus paid become recoupable. By way of specific example, in FY81 only 1/3 of 1% of the Air Force SRB payments became recoupable. Because the 50% lump sum/50% installment payment method was iniatiated only five months ago, it is too early for any actual impact of that payment method to be measured.

Enlisted Foreign Duty Pay

QUESTION: Last year, Congress reduced the $27 million funding request for enlisted foreign duty pay (in Diego Garcia, Alaska, Germany, etc.) to $14.6 million so that the pay was restricted only to arduous duty locations. DoD requests restoration, however, of $7.9 million in the 1982 Supplemental. If this pay has been restricted to arduous duty areas, why is additional funding requested?

ANSWER: At congressional direction, the Department is completing a review of arduous duty locations with a view to limiting the number of areas qualifying for foreign duty pay.

With regard to funding, the appropriation conferees agreed that any individual who was receiving foreign duty pay on January 1, 1982 shall continue to be eligible for such pay until reassigned out of that geographic area. This save-pay provision is expected to hold FY 1982 savings well below the reduction made unless foreign duty pay is virtually eliminated. The Services estimate these costs at $7.9 million.

Selective Reenlistment Bonus Program

QUESTION: The linkage between selective reenlistment bonuses (SRB) and basic pay (SRB = 1 month's basic pay X multiplier X number of years committed) effects a bonus increase each time basic pay goes up. Congressional concern that such bonus increases are not justified, however, prompted DoD to implement fractional multipliers for bonus calculation. What savings are anticipated for FY 1982 and FY 1983?

ANSWER: As indicated in our 1 May 1982 report to the Congress on SRBs, the Department intends to implement fractional multipliers in the near future. The specific administrative details are now being developed for a change to the Department's directives on the SRB program. On an experimental basis, we instituted the use of a multiplier of 1/2 in March of 1982. The Air Force now has two specialties at the 1/2 level and the Navy three in support of this experiment.

Becaue the half multiplier system has not yet been implemented and the Services have not yet made projections of an SRB program using this new multiplier system we cannot estimate the change in outlay. Additionally, the impact may be offset by the reduced attraction of the less than full lump sum payment method.

EUROPEAN BRIGADE

QUESTION: The Army requests $39.3 million in the pending 1982 supplemental to fund a European brigade scheduled for inactivation under the revised 1982 budget request. Why did you change your mind? Is this decision related to the $75 million savings and four battalion reduction recently offered up by DoD?

ANSWER: The FY 82 supplemental request for the 4th Bde, 4th Infantry Division (M), stationed at Wiesbaden, Germany, results from reversal of a decision made during last summer; at that time, budget limitations imposed on the Army required reductions in FY 82 and FY 83 outlays.

To protect essential readiness and modernization programs, the Army leadership elected to reduce force structure; included in that reduction was inactivation of the 4-4th in late FY 82 to achieve FY 82 and FY 83 savings. The FY 82 budget, as amended in September 1981, deleted funds for the brigade. In January 1982, as the FY 83 budget formulation process was finalized, the funds and manpower associated with the brigade were restored to the Army as a consequence of the Polish crisis and the FY 83 budget reflects that restoration. Since FY 82 funds were deleted in the FY 82 Amendment, supplemental funding is required for pay of the brigade personnel.

This decision, having been made in January 1982, is not related to the four battalion reduction recently suggested by DoD.

QUESTION: $67.3 million is requested in the supplemental to fund Temporary Lodging Expenses authorized by the 1981 Pay and Benefits Act. Why can't this new benefit be eliminated to save money?

ANSWER: Generally, military families incur additional expenses to procure temporary lodging at the old duty station (vacate house due to shipment of household goods and cleaning) and/or new duty station (awaiting household goods or new home occupancy). The Uniformed Services Pay Act of 1981 provides for up to four days Temporary Lodging Expenses to help reduce the financial hardship placed upon our members. We believe it is a fundamental responsibility of the Government to reimburse our members for out-of-pocket expenses resulting from Government-ordered moves.

Selective Reenlistment Bonus Program

QUESTION: The Navy, Marine Corps, and Air Force request $20.1 million in the 1982 supplemental for reenlistment bonuses. This funding will allow service extensions to count in bonus computations. Why should we pay bonuses for service extensions?

ANSWER: There was clear evidence that the existing policy of not counting periods of obligated service from voluntary and involuntary extension in bonus computation was a retention disincentive. This change will enhance the retention impact of the SRB for critical skills, especially the highly trained technical personnel in the Navy's 6-year obligor program. In addition, it removes the retention disincentive for personnel selected for retraining into critical skills and for assignment overseas.

1982 SUPPLEMENTAL

QUESTION: All Services were cut in the area of personnel compensation last year in the appropriations process. Now about $62 million of the reductions to the Navy appropriation are reappearing in the supplemental request as "Program Underfinancing". Please explain.

ANSWER: The "Program Underfinancing" portion of the supplemental request for the Military Personnel, Navy appropriation is required to fund increases in the cost of entitlements affected by the "Military Pay and Allowances Benefits Act of 1980" and to offset assessments levied against this account by the Appropriations Bill which could not be accommodated within the authorized manpower program. The supplemental request includes $20.7 million over the original request for submarine duty pay, sea duty pay, overseas extension pay and family separation allowance based on actual FY 1981 experience. The additional funds requested in the program supplemental are needed to meet actual entitlement costs experienced thus far in FY 1982. These funds are required to maintain the current planned FY 1982 Navy manpower program. Approval of only a part of this program supplemental will require sizeable downward adjustments in overall strength levels, bonus programs and permanent change of station travel, which would detract from the positive gains experienced in the manpower area over the past two years.

QUESTION: $46.8 million is requested for Variable Housing Allowance (VHA). A VHA is paid to officers living in high cost areas within the U.S. Yet, GAO reports various abuses, such as personnel receiving VHA but actually living in low cost areas. Moreover, a VHA is based on what members say they pay for housing, a situation prone toward abuse. Why should we fund this request when it in fact could be greatly overstated?

ANSWER: First, all personnel qualify for VHA, not just officers. Secondly, as to the GAO report, we have implemented the VHA in accordance with the law, which requires that we pay a VHA in those areas in which military reported housing expenses exceed 115 percent of BAQ. Therefore, to the best of our knowledge, we are not paying a VHA in low cost areas. Thirdly, we have found no evidence that members are abusing the VHA system by reporting expenses they have not actually incurred. Lastly, our funding request is not overstated. It is in fact understated. Our estimate of $46.8 million was based on only two months experience in FY 82. We now estimate, based on more recent data, that our funding requirement for VHA has increased by an additional $12 million.

Revised Estimate of Requirements

QUESTION: Since much of the data used in formulating the pay and program supplemental may now be out of date, please submit for the record a revised estimate of your requirements.

ANSWER: With a few exceptions discussed below, the requirements for the pay and program supplemental have not decreased. Quite the opposite condition exists.

The estimates for the civilian pay and supplemental request are based on the actual pay increases which have occurred for our classified personnel and which are occurring for our wage board personnel. Our personnel plan is generally on track or exceeding the plan in certain areas. We have not found any major error in our pay supplemental calculations, although some minor variation to our estimates may develop between now and the end of the fiscal year.

The military pay estimates which have been presented are still essentially correct. If anything, our pay requirements will most likely be greater than requested if the recent trend continues of our older, more experienced and higher paid personnel electing to stay in the Service. We have had to reprogram $158 million into the pay areas in our military personnel accounts because strength averages throughout the year are higher than originally planned.

However, there are some funds available in the Military Personnel, Air Force account. Based on actual data through March, the Air Force has identified $88.3 million in the Military Personnel, Air Force appropriation which is available for other requirements. Prior approval reprograming requests are being submitted to the Congress to utilize part of the $88.3 million. The Department of Defense plans to utilize $31.2 million for the CHAMPUS program, and $12.0 million for an Air Force classified project. The balance of the funds, $45.1 million, can be used to offset the FY 1982 pay raise supplemental.

In addition, we have identified to the Committee $50 million in reduced requirements for our Retired Pay, Defense supplemental request.

Impact of No FY 1982 Program Supplemental

QUESTION: What major impacts will occur if we get no FY 1982 program supplemental?

ANSWER: The FY 1982 program supplemental request includes $464 million for military personnel costs. Of this total, $85 million relates to entitlements which were authorized by the Uniformed Services Pay Act of 1981 and are currently being paid. The "Pay List" also authorized certain discretionary programs totaling almost $100 million. Members are not receiving the benefits of these authorized, but discretionary, improvements in military compensation pending approval of the program supplemental. Nearly $100 million pertains to the underfinancing of the FY 1982 appropriation act and is required to finance currently approved programs. Almost $50 million is required to fully finance fact-of-life increases where costs actually being incurred are higher than the initial estimates. Roughly $40 million was requested in order to allow the 3rd Brigade to remain stationed in Germany -- represents pays and allowances which are currently being paid. Of the approximately $98 million requested for retired pay, we have identified to the Commmittee $50 million in reduced requirements.

Thus, we are incurring costs for all of the amounts in the program supplemental with the exception of the $100 million in discretionary pay programs and $50 million in the retired pay account.

Because we have already taken action to reprogram funds from other accounts to cover increased costs in our pay accounts, the net result of no FY 1982 program supplemental for all but the entitlement programs would be reduced readiness caused by significant reductions in other program areas. The only way to absorb these ongoing unfunded costs would be to reduce other programs previously approved by the Congress. Moreover, the later in the year approval or denial is received the more limited the feasibility to restructure programs becomes.

QUESTION: Career Basic Allowance for Subsistence (Career BAS) accounts for $55.3 million of the budget request. This initiative would permit enlisted personnel E-5 and above who currently use a ration card in troop dining facilities to receive a cash allowance for food. This program was included in the Senate-passed 1982 DoD Appropriations Bill but was lost in conference. Why should we again support Career BAS?

ANSWER: An inequity still exists for these members, who are normally subsisted-in-kind, when they pay for meals eaten in other than an enlisted dining facility. Career BAS would eliminate this inequity by providing all enlisted members in pay grade E-5 and above this basic allowance. Each would be required to pay for meals eaten at an enlisted dining facility. Without Career BAS, enlisted members who occupy troop housing essentially experience a reduction in their basic compensation for meals not consumed in government facilities.

QUESTION: DoD presented Congress with a list of voluntary budget reductions last week for use in reaching the Budget Resolution. Major items included $418 million in personnel entitlements/bonuses and support; $264 million in end strength and unit strength adjustments; and $47 million in recruiting and advertising. Since the Committee has no details on these give-ups, please provide us with them now.

ANSWER: The Defense list referred to was provided reluctantly, but as a good faith response to the Senate Armed Services Committee in the context of the agreement reached between the President and the Senate Republican Leadership. Except for the $47 million in recruiting and advertising, the amounts associated with the major areas of reduction identified in the question do not correspond with those contained in the Defense response. Details supporting those amounts would have to be supplied by the Senate Armed Services Committee. The recruiting and advertising item was included on the list in recognition that the Military Departments have met or exceeded their numerical recruiting goals and experienced improved retention. The amounts approximate the real growth included in the FY 1983 program.

QUESTION: The Department of Defense has just earmarked $140 million as 1983 budget give-ups, $60 million relating to Army Reserve fulltime manning, and $80 million relating to paid drill strength. In our last hearing, however, Army Reserve witnesses were unaware of these budget cuts. Were these cuts made without Army Reserve participation?

ANSWER: Yes.

QUESTION: The Administration expects to save $4.5 million in FY 1983 by rounding all retired pay benefits to the next lowest dollar and $84 million by reducing or eliminating CPI increases for retirees. What is the status of proposed legislation to effect these changes? What are the long term savings and number of personnel affected?

ANSWER: The Administration's legislative proposal in military retired pay was transmitted to Congress on April 30, 1982. We estimate that the proposal to reduce CPI increases for current retirees would impact about one third of the retirees in FY 1983. The proposal to round all benefits to the next lowest dollar would affect most retirees in amounts ranging between one cent and 99 cents each month.

The following table indicates expected savings from our proposal. The savings in the President's Budget have been adjusted downward based upon a more accurate model used to evaluate the proposals.

($ Millions)

	FY 1983	FY 1984	FY 1985	FY 1986	FY 1987
Round Down	5	9	9	9	9
Recomputation	54	125	173	206	226
Total	59	134	182	215	235

QUESTION: Two other proposed legislative changes are to eliminate the "lookback" provision and to hold future retirement increase to either the pay increase or CPI change, whichever is lower. What is the status of this legislation and what savings should we expect?

ANSWER: The legislation was transmitted to the Congress on April 30, 1982. Under current economic assumptions there would be no savings.

Civilian Pay

QUESTION: The fiscal year 1982 DoD Appropriations Act raised the pay of wage grade employees in the Wichita, Kansas area. This pay increase was a selective increase which resulted from an amendment introduced by Senator Kassebaum during the appropriations bill floor debate. Please provide for the record the position of the Department of Defense on this wage board increase.

ANSWER: The Department of Defense is strongly opposed to the selective wage increase which was granted to Federal Wage System employees in the Wichita, Kansas, wage area. As a result of Senator Kassebaum's amendment, employees in the Wichita area received an average increase of 27.8 percent, while virtually all other Federal employees were limited to an increase of 4.8 percent. There was no basis for singling out the Wichita wage area in this manner. Had there been serious recruitment and retention problems in the Wichita area, administrative procedures were available through which special wage schedules or rates could have been established. No such problems existed.

The pay lag in the Wichita area resulted solely from the pay increase limitations which had been applied over the several preceding years. The same situation exists in nearly all other wage areas, many of which have a greater pay lag than that which existed in Wichita. Providing preferential treatment for one wage area while all are similarly situated results in serious inequities, as well as defeating the purpose of pay increase limitations. Accordingly, the Department of Defense opposes the action taken with regard to the Wichita area and would oppose equally as strongly any similar action proposed for any other wage area.

QUESTIONS SUBMITTED BY SENATOR ANDREWS

Question: How do the Services plan to correct deficiencies in their pretrained manpower pools to permit rapid mobilization in case of an emergency? Do the requested Reserve and Guard strengths still appear attainable in the light of recent retention and recruiting experience?

- Percentage increases requested for Guard and Reserves are:

Army National Guard	+ 3.7%	
Army Reserve	+ 9.9%	
Naval Reserve	+20.5%	Increases are FY 82-FY 83
Marine Corps Reserve	+ 1.9%	
Air National Guard	+ 2.5%	
Air Force Reserve	+ 5.1%	

Answer: On April 7, 1982, the Department submitted a comprehensive proposal to Congress to eliminate the deficiencies in pretrained manpower. This proposal provides for the military service obligation to be extended from six to eight years as the long term solution to increasing Individual Ready Reserve (IRR) strength. During the interim period, the proposal includes enlistment and reenlistment bonus authority to increase significantly IRR strength until the extended service obligation becomes effective. The Army is also planning to begin an IRR direct enlistment program in FY 83. This program will increase IRR strength by allowing an individual to enlist, attend initial active duty training, then return to the IRR for the remainder of the service obligation and attend periodic refresher training. In addition, a proposal is also being studied that would extend Servicemen's Group Life Insurance program to IRR members. It is expected that this combined approach will eliminate the pretrained manpower shortages by the late 1980's.

With regard to our progress in attaining strength in the Selected Reserve, the Reserve Components at the end of March, 1982 had achieved a strength of 934,000 against an FY 1982 request of 946,000. The attainment of 74% of the years objective in 50% of the elapsed time is indicative of the ability to reach, if not exceed, the FY 1982 requested strength.

Civilian End Strength

QUESTION: The Armed Services Committee has authorized a DoD civilian strength for FY83 at 11,000 below the Administration request. The reduction is principally in the Army. Will these civilian jobs now be required to be filled by military personnel? If not, how will the program be adjusted to compensate for the reduced level of civilian manpower?

ANSWER: The Army civilian increases contained in the FY 81 Supplemental and the FY 82 Amendment are authorized to offset Borrowed Military Manpower (BMM) Troop Diversions (TD) and for the Depot Level Maintenance. Essential programs do not have adequate civilian spaces to accomplish their workloads. If the Army's request is reduced for FY 83 for unspecified purposes, an internal reprioritization will be accomplished. The Army is committed to reducing borrowed military manpower and Commanders in the field will be faced with the dilemma of reducing missions or using soldiers to offset the loss of civilian resources. Therefore, soldiers will continue to fill jobs which civilians could perform but for which Army does not have sufficient civilian manpower authorizations.

A second unacceptable alternative is to let depot level maintenance backlogs grow again just after having obtained resources to reduce to zero. Backlogged items are unavailable for issue to the field thus reducing unit training and wartime readiness. Historically, these two areas have suffered when sufficient civilian resources were not available to meet workload requirements.

RESERVE PERSONNEL MANAGEMENT

QUESTION: Why does the Army retain responsibility for Reserve personnel management by the Deputy Chief of Staff for Personnel, rather than giving this responsibility to the Chief of the Army Reserve? Doesn't this unduly limit the authority of the Reserve Commander?

ANSWER: The current Organization and Functions of the Department of the Army assign responsibility for military and civilian personnel management to the Deputy Chief of Staff for Personnel (DCSPER). This responsibility extends to policy supervision and coordination of personnel management systems for the Active Component and for the Reserve Components in coordination with the Chief, National Guard Bureau (CNGB) and the Chief, Army Reserve (CAR). These same

Organization and Functions establish the CAR as the Advisor to the Chief of Staff, Army on US Army Reserve matters and require the CAR to provide policy direction and to monitor the personnel management systems of the Army Reserve under the general personnel policy guidance of the DCSPER. This centralization of personnel management policy matters under the DCSPER is not only necessary to make the Total Force concept a reality, but is also required for policy consistency and because of the personnel interrelationships between the Active and Reserve Components. This arrangement places no undue limitations on Reserve Component Commanders, who function in the personnel management arena not unlike their Active Component counterparts. If the question refers to a single commander of the Army Reserve, none exists above the Commander, US Army Forces Command. One of the issues on which the Army is required to report to the Senate Armed Services Committee by 1 December 1982 is the matter of the justification for maintaining responsibility for Reserve personnel management in the Office of the DCSPER rather than in the Office of the CAR.

Skill Shortages

QUESTION: The Deputy Chief of Staff of the Marine Corps Reserves (MGen Crist) recently testified to this Subcommittee that there are serious shortages in skilled manpower in the Marine Reserves. Is there any provision in the FY83 budget request to address these shortages?

ANSWER: As unit strength increases, grade and skill shortages are emerging as major inhibitors to increased personnel readiness. To ameliorate the skill shortages and achieve the goal of 100 percent wartime strength, a vigorous attrition management program will be instituted, bonus utilization maximized, retraining opportunities expanded and a comprehensive prior service recruiting program inaugurated. An increase of $1.9 million has been requested for fiscal year 1983 to support the aforementioned programs.

FY83 Pay Raise

Question: The Senate Budget Committee has recommended that there be no military (or civilian) pay increase in FY83 and only a 4% increase in FY84. The President has endorsed this proposal. Would this have an adverse effect on military retention, considering that the continued poor state of the economy is unlikely to produce strong competition from the private sector?

Answer: Yes. Even if the economy fails to improve, a pay freeze in FY83 followed by a 4% paycap in FY84 can be expected to have an adverse effect on retention. Individuals in critical skills continue to have strong civilian alternatives and the demand for their skills will likely lead the economic recovery. In addition the present poor state of the economy is not expected to continue through FY84. The positve perceptions created by improvements in pay and benefits in FY81 and FY82 will be diminished. As the economy improves, lags in pay adjustment could cause the type of experience loss which resulted in the late 1970's following a series of paycaps.

Military Manpower Budget

Question: Will the shrinking pool of young men force a return to the draft in the late 1980's?

Answer: No. If necessary resources (pay, benefits and recruiting) are kept at levels competitive with the private sector, manning levels should prove satisfactory. As historical experience has shown since the inception of the AVF in 1973, when resource levels lag in competition with other sectors of the economy, the success of the AVF wanes; when our resources keep pace, the success of the AVF brightens. A primary factor underlying the AVF concept is that necessary resources for military manpower must remain competitive.

Return to the Draft

Question: What proportion of the budget is projected to be devoted to military manpower in that period? The FY83 DoD budget request for military manpower is 22% of the total FY83 outlays.

Answer: The 22% figure consists of 19.9% for active military and 2% for reserve and guard personnel. The outyear budget percentages depend on the level of procurement and other non-personnel expenditures in the budget, the grade and experience mix of the force, enlistment and retention behavior (tied to external factors such as the unemployment level), the operational tempo of our forces, and the degree to which military pays and allowances remain competitive with other sectors of our economy. Accordingly, the proportion of the budget to be devoted to manpower in the late 1980's cannot be determined at this time.

FY83 Pay Raise

Question: One of the items recommended by the Budget Committee is the suspension of the COLA on retirements and any pay raise in 1983 for both the military and civilian employees. What is your guess as to the impact on DoD of these recommendations?

Answer: Without offsetting compensation such as bonus increases, a pay freeze in FY83 would have an adverse impact on our ability to retain quality military and civilian personnel, especially in skills with strong civilian alternatives. The impact of the suspension of the COLA to retired pay would depend on individual military members' perceptions of the change. If they view the suspension as a single isolated act the impact on retention would be expected to be minimal. If they view it as the beginning of the erosion of the retirement system, the monetary and institutional attractiveness of a military career would be reduced and the negative impact on retention could be substantial.

Question: The Individual Ready Reserve (IRR) reenlistment bonus of $600 was in effect in FY 1981 but not in FY 1982. What was your reenlistment experience in 1981 and what has been your experience thus far in 1982?

Answer: The FY 81 IRR Reenlistment Bonus program achieved 6,618 reenlistments for a reenlistment rate of 4.8%. Fully 80% of these reenlistments were obtained after there was a decision not to continue this program in FY 82. Before the FY 81 program the reenlistment rate in the IRR was 1-2%. Preliminary reports from the services indicate that the reenlistment rate for

FY 82 will revert to the pre-FY 81 rates. Without a bonus there is no incentive for individuals to continue as a member of the IRR and nearly all of them elect discharge. It is estimated that the FY 82 bonus program could achieve a reenlistment rate of 10% and this program is an essential element of the comprehensive legislative proposal that was submitted to Congress to completely eliminate the mobilization manpower shortages.

Question: Would you clarify for the record please, what are the basic differences between Incentive Pay, Special Pay and Proficiency Pay?

Answer: All of these items of compensation are codified in Chapter 5, title 37, United States Code, under the heading "Special and Incentive Pays." The general purpose of all is to correct, through financial inducements, manning problems that seem incapable of correction through management action or through basic pay adjustments. "Manning problems," as used here, include deficiencies in attraction, retention, morale/motivation, or career manning.

"Incentive pays" refer to that group of special and incentive pays awarded for voluntary performance of duties that are more hazardous than most in peacetime. Examples are flight pay, parachute pay, demolition duty pay, and carrier flight deck duty pay. These are popularly called "hazardous duty pays." Also included in this category are career incentive pays, such as aviation officers or submarine crews. Such pays are usually awarded in fixed monthly rates.

"Special pays" refer to all other special and incentive pays, including proficiency pay. Some, such as duty subject to hostile fire and diving duty, involve a degree of risk comparable to the incentive pays. Others, such as sea pay or duty at certain places pay, involve a degree of discomfort or deprivation not normally found in typical peacetime military assignments. The remainder address attraction and retention problems, either in general or for specific duties (e.g., medical professionals, nuclear reactor operators, engineers or scientists). Proficiency pay for enlisted personnel falls into this latter category. It has three manning objectives:

o to correct manning imbalances in certain duties through the "shortage specialty" awards,

o to attract qualified personnel to volunteer for duties outside of their normal career patterns; e.g., recruiters, linguists or career counsellors, through "special duty assignment" awards,

o to encourage and reward superior performance in whatever duty assigned.

Only the first two objectives are currently funded and operational. A somewhat comparable pay for officers, "responsibility pay" also exists but is not used widely outside of the Navy. Since proficiency pay is limited in financial amount, various bonuses have been used to supplement or supplant it.

Special pays may be awarded in fixed monthly amounts or in variable bonus amounts. Many special and incentive pay programs may be terminated by the President in the event of war.

Medical Charges for NATO Students

Question:

Opening statement contained reference to proposed legislation to reduce the amount we charge for NATO students and also to reduce the charge for medical care. It is my belief that this government should recover full costs for both of these items as well as anything else we are providing. Any reduction in fee charged requires us to appropriate more. Do you really think this is a good idea?

Answer: I strongly support the two legislative proposals. Considering the proposal for charges for training NATO students, current law requires us to include in our computation of prices a share of all direct costs. These include elements of cost that DoD would have to pay to train its own students even if it trained no foreign students at all. Our allies consider these extra charges to be a subsidy to the US training base and an overcharge for the services the US provides. I agree with their view. What the legislative proposal would do is to eliminate this forced subsidy and to require NATO nations to pay only the additional costs attributable to their students, in accordance with NATO policy and practice. This method of computing prices would allow the US to recover the full costs of providing the training.

An example may clarify the matter. The US Army trains helicopter pilots for four NATO nations at Fort Rucker, Alabama. Under the legislative proposal the US would recover the full additional costs incurred in training these students. It would cease to demand payment, as it must now, for part of the base operating costs of Fort Rucker, which are not increased by the few additional foreign students. In other words, the training would be provided at cost, not above or below cost. Beyond the question of fairness to our allies, the legislative proposal would tend to increase the number of NATO students that train together. This would benefit the US by improving the combat capability of NATO forces.

On charges for medical care, we are asking for authorization to follow the practice that we have followed for thirty years and that is based on the NATO Status of Forces Agreement of 1951--that is, to charge NATO students the same fees for in-patient care that we charge our own military people. Charging full costs is tantamount to unilaterally renouncing a provision of a treaty with our allies. The allies reciprocate in setting their charges for US personnel when our people use their medical facilities. In some cases, notably Canada, we would end up paying other nations more than they pay us, because, in the case of Canada, we have more military people there than they have in the US.

Both of these issues are major irritants in our relations with NATO nations. The topics continually clog the agendas of NATO meetings and interfere with consideration of other issues that are far more important to NATO and to the security of the US. The benefits that would flow from adopting the two legislative proposals would be worth much more than the relatively minor amount of funds the US saves through its current practices.

Household Goods (HHG) Weight Allowances

Question: Also in the statement entered into the record there is an increase sought for the movement of household goods. The budget asks for $12 million to move more than the current 13,500 lbs limit. How much of a weight limit increase does $12 million provide? Is this amount for all services combined?

Answer: The FY 1983 budget submission request includes several initiatives to more adequately reimburse a military member for actual costs incurred during a permanent change of station (PCS) move. The initiative pertaining to the movement of household goods would provide for increased household weight allowances, especially for lower officer ranks and senior enlisted grades. The following table shows a comparison of the current and the proposed maximum weight allowances.

Grade	Currently Approved Maximum Weight	Proposed Maximum Weight
0-10	24,000 1/	24,000 2/
0-09	18,000 1/	18,000 2/
0-8	14,500 1/	16,000
0-7	13,500	15,000
0-6	13,500	14,500
0-5	13,000	14,000
0-4, W-4	12,000	13,000
0-3, W-3, W-2 (Proposed)	11,000	12,000
0-2, W-2 (Current)	10,000	11,000
0-1, W-1	9,500	10,000
E-9	9,500	12,000
E-8	9,000	11,000
E-7	8,500	10,000

1/ Limited to 13,500 by FY 1982 DoD Appropriation Act.
2/ Limited to 16,000 by proposed FY 1983 DoD Appropriation Bill.

The $12 million represents the estimated cost to Navy for this purpose. The total cost to the Department is estimated to be $58 million broken down by Service as follows:

	($ Millions) FY 1983
Army	$27.5
Navy	12.2
Marine Corps	4.7
Air Force	13.8
Total	$58.2

Career Basic Allowance for Subsistence

Question: An increase of $32 million has been identified to compensate enlisted personnel in the area of Basic Allowance for Subsistence (BAS) for meals not taken at the dining halls. It has been a long standing practice, and rightfully so, to compensate enlisted personnel when dining facilities are not available but this requirement looks like payment if he or she chooses not to use it. Considering past investments in upgrading the dining facilities, why are you asking for $32 million to pay folks for not using them?

What does this do to your ability to estimate the number of meals to prepare?

Should'nt this money come from the savings from not serving meals?

Answer: The FY 1983 budget submission requests $55.3 million ($32 million for Navy) to authorize a discretionary BAS for all all enlisted personnel in grade levels E-5 and above.

Enlisted personnel are subsisted in kind unless they meet certain criteria, such as marital or dependency status, location of residence, specialized duties or working hours, distance to the dining facility or dining facility capacity. Personnel without dependents who live in barracks, including senior personnel in that situation, normally do not receive BAS but instead may eat without cost in military dining facilities. This requirement constitutes a real and persistent irritant to unmarried career personnel.

While the value of entitlement to meals without cost should be comparable to the entitlement to BAS, the true value to the individual member is significantly diminished by virtue of the fact that few, if any, members eat all 21 meals per week in the dining hall. On the average, absentee rates have been around 40 percent, which in effect means that the true compensation value of subsistence-in-kind (SIK) is reduced by that amount for the average member.

It should be noted that this category of personnel has received relatively little benefit from recently enacted compensation improvements. For example, the Nunn-Warner legislation provided for a 10 percent increase in subsistence allowance effective September 1, 1980. Personnel on SIK received no increase. On October 1, 1980, and again on October 1, 1981, the allowance was further increased for pay raise purposes by 11.7 percent and an average of 14.3 percent, respectively. Personnel on SIK received no increase in the subsistence portion of their compensation. They also did not receive any increase in quarters allowances and they do not qualify for variable housing allowances (VHA) since they reside in barracks. An appreciable part of our career force may have some difficulty recognizing the significant recent compensation improvements since they do not share in a large part of the increases. While it is true that their compensation increases as the cost of food increases, it is difficult for them to make an accurate valuation or recognize the increases as they occur.

Improvement of the real and perceived compensation of these careerists, along with removal of a frequently cited irritant, could be achieved by placing greater numbers of enlisted personnel on BAS. This would eliminate the financial penalty these personnel now must pay whenever they choose not to eat in a military dining facility. Studies and tests conducted during the mid-1970s demonstrated conclusively a high degree of acceptance of this program among military members.

During the tests, which were conducted at several bases, relatively little change occurred in attendance rates at dining facilities. It does not appear that authorizing BAS for all career personnel would materially affect the operation of military dining facilities or affect the mobilization training base for food service personnel. Therefore, this program should not materially affect our ability to estimate the number of meals to prepare. It should also not significantly reduce the cost of serving these meals.

QUESTIONS SUBMITTED BY SENATOR STENNIS

FY 1981 Recruiting Results

QUESTION: Secretary Korb, your statement mentions a number of factors which influenced the favorable 1981 recruiting results. Wouldn't you believe the state of the economy, where many of the prime recruiting age persons could not find jobs, was the most important factor?

ANSWER: The state of the economy has helped recruiting but was not the "most important" factor. No single factor can be isolated as an overriding most important reason for our recruiting success. The economy, more favorable attitude of the public toward our men and women in uniform, improved quality of military life initiatives, increased pay levels, increased recruiting resources and enhanced enlistment incentives have all contributed to our success.

Recruiting Trends

QUESTION: The economy has remained relatively dormant through FY 1982 to date. Are you finding the trend of the past year as to recruiting results to be much the same?

ANSWER: Yes, all the Services are expected to achieve their goals in terms of quantity and quality.

Future Recruiting

QUESTION: What is going to happen if the economy takes an upswing in the third quarter as is predicted by the Administration? Are we going to be forced once again to accept below-average personnel and still face shortfalls?

ANSWER: When the economy takes an upswing, recruiting may become more difficult. However, we believe the quantitative and qualitative enlistment requirements of the Services can be met with adequate recruiting resources, a competitive compensation package, continued enlistment incentive, and appropriate manpower policies.

Additional Basic Training

Question. We are now inducting the highest percentage of high school graduates and personnel averaging higher scores on the Armed Forces Qualification Test. Those two factors are supposed to indicate the capability for trainability. Yet the FY 1983 budget requests funds to add an additional week to the period of Basic Training. Why is this?

Answer. The decision to increase Army Basic Training by one week was not based on the relative mental ability or trainability of trainees. Numerous comments from field commanders indicated a need to increase the amount of basic combat survival skills taught; provide for better physical conditioning; do a better job of soldierization (the process of converting a civilian to a highly motivated disciplined soldier); and conduct a significantly more detailed, standardized end of course test. The increased time is required to accommodate these additional objectives regardless of the educational background or relative trainability of accessions.

Future of the AVF

QUESTION: Do you believe the All-Volunteer Force is a viable vehicle for manning the Services in the late 1980s and the 1990s?

ANSWER: We recognize that the real key to successfully meeting military manpower requirements is whether we can attract and retain the numbers and kinds of people needed for a strong defense posture. We must also point out that Fiscal Year 1981 represented an important milestone for the All-Volunteer Force. It demonstrated clearly that in a democratic society, citizens will enlist and remain in the service of their country voluntarily when given the proper encouragement, incentives, and respect. All of the Services met or exceeded their recruiting and retention goals in terms of quantity and quality. This success has continued through the first half of Fiscal Year 1982.

The success of the past 18 months shows that the voluntary system can work and represents the best way to meet our manpower requirements in times of peace We recognize that the future holds many challenges for the All-Volunteer Force, but with the support of Congress and the American People, and the continued strong backing of our President, we believe the AVF will continue to be a viable vehicle for manning the Services in the late 1980s and the 1990s. However, should significant long term recruiting and retention shortfalls occur that would adversely impact readiness, we would review alternative ways to meet military manpower requirements.

Recruiting Incentives

QUESTION: Your statement mentions the need for a competitive enlistment package. Some believe that the enlistment package is now more than competitive when one considers the large pay increase of the past two years, the various bonus provisions and the educational opportunities. Is it your opinion that it is necessary to continue these recruiting incentives during this period that is relatively a "sellers" market?

ANSWER: The major incentives increases over the last two years are among the primary reasons for our success. The pay increases and enhanced enlistment incentives, combined with public support and economic conditions, enabled the Services to attract adequate numbers of high quality individuals to the military and to the traditionally hard-to-fill skills. Possible improvements in the economy, the continued decline in the youth population and increased accession levels make absolutely essential the continued availability of the recruiting incentives to which you refer.

Enlistment Bonuses

QUESTION: You mentioned that bonuses are a highly flexible and efficient means of improving recruiting. Yet they appear only to go higher. Are they really adjusted to reflect supply and demand? Can you show specific examples where they have been reduced?

ANSWER: All the Services routinely review their enlistment bonus programs and make adjustments based on accession requirements and recruiting trends. The Army in FY 1982 eliminated 3 military occupational specialties (MOS), as a result of the review. The "Uniformed Services Pay Act of 1981" gave the Services authority to increase bonuses from a maximum of $5,000

to $8,000. Despite this authority, the Services have not thus far utilized this new authority in view of the current recruiting success. The Army will only be offering $8,000 bonus in 30 percent of the country starting on 29 June as part of the Congressionally mandated enlistment bonus test. Results of this test will provide an empirical basis for future enlistment bonus programs.

Educational Benefits

Question: Would you comment a bit further on your belief that uniform educational benefits across the Services would reduce high quality enlistments in the Army. Why would this be?

Answer: The FY81 Educational Assistance Test gave the Department the opportunity to examine the impact of uniform educational benefits on all Services. The result of that portion of the test clearly indicates that when all services were offered the same level of educational benefits, the Air Force and Navy experienced increases in high quality male enlistments, while the Army high quality male enlistment declined. In the test cells in which Army offered a higher educational benefit level, enlistments of high quality males increased in all three services. Our conclusion, which is supported by our current experience with the FY82 Army Ultra-VEAP program, is that the Army requires a more attractive educational program than the other Services to increase its number of high quality enlistments, and that this advantage does not adversely affect the high quality enlistments in the other Services.

Critical Skill Shortages

Question: Would you comment on the actions and programs which the Department is taking to meet the shortages of personnel in critical skills.

Answer: All of the Services have programs underway, in addition to compensation initiatives and reenlistment bonuses, to reduce shortages or eliminate imbalances. Each Service is implementing a set of programs that will help the Service solve their particular manning problems. The Army has implemented a force alignment plan to improve skill match. The Army is making changes in promotion policies, reclassification policy, reenlistment policy and targeted selective reenlistment bonuses, and prior service enlistment policy. The Navy is pursuing several non-compensation management actions to address the skill shortage problems. Among these actions are increased emphasis on recruitment of prior service naval personnel, lateral entry programs, promotion planning based on individual rating manning levels, tightened reenlistment controls, and training plans geared toward ratings with current or projected shortfalls. The Marine Corps is also employing personnel management measures to balance its inventory with requirements. The Air Force's program to address skill imbalances was very favorably reviewed by the GAO in a Letter Report to this Subcommittee on April 19, 1982.

Management by Skill

Question: -- Would you say that management by skill programs is necessary to adequately deal with skill shortages and surpluses?

Answer: Yes. Specific skill management is the keystone to enlisted personnel management. We attack shortages and imbalances through personnel policies and programs to include the use of special pays such as the Selective Reenlistment Bonus.

Question: What is the potential of using tailored pay increases to attract and retain people with critically needed skills?

Answer: Under current law, we have the authority to target the pay raise by grade and years of service, but not by skill. Further, we do not believe the annual military pay raise should be used for that purpose. The annual military pay raise should be used to provide all military personnel with a level of pay that enables them to maintain a standard of living generally comparable to that of their private sector civilian counterparts. Shortages in particular skill areas should be addressed through the use of special pays, incentive pays, and bonuses.

Retention of Senior NCO

Question: - What is the Department doing to retain senior non-commissioned officers (NCO) in critical skill shortage areas beyond their traditional 20-year retirement?

Answer: We manage the career force by years or length of service which is similar to experience levels. The Services strive to take appropriate action when the number of people in the later years of service groups are projected to be less than the objective. For example, the Air Force liberally uses waivers to their tenure policies to allow individuals with needed skills to stay on beyond normal separation points. Increases in compensation as well as an appreciation on the part of the nation for military service have contributed to our ability to retain people for longer periods. Research shows that non-compensation items are a strong factor in retaining senior people and for this reason we are emphasizing improvement in the quality of life for all servicemembers.

Retraining

Question: -- Has DoD undertaken any programs to retrain personnel with surplus skills and shift them to jobs where they are needed?

Answer: Yes. All of the Services are doing this and use various incentives such as the Selective Reenlistment Bonus to encourage this. For example, in the Army, soldiers who qualify to reenlist for training in another skill may only do so for a shortage skill. In the Air Force, volunteers will be retrained first, but if more people are needed to meet the retraining goal, non-volunteers could be selected.

Reenlistment Supply and Demand

Question: -- Does the Department consider the supply and demand situation in various skill positions prior to accepting personnel for reenlistment?

Answer: A good example of how the Services implement policies of this nature is the Army which now allows reenlistments only in present skill or in a shortage skill. Reenlistment objectives to Army major commands are specified by MOS as well as quantity.

Question: The President has recommended an 8 percent increase in compensation for military personnel. A number of authorities believe that the last place to cut Defense expenditures is in compensation. I would like your comments on this matter.

Answer: The 14.3 percent military pay raise of last October generally restored military to competitive levels and we estimate that an 8 percent increase would be required this October to maintain those levels. However, we recognize that DOD, like other groups in the public and private sector, may have to sacrifice a bit. In this regard, the military pay raise may be less than 8 percent. Over the long term this Administration is committed to maintaining military pay comparability. To the extent that military pay is restrained this year, we will be seeking to make it up in future years.

Question: In terms of the total Federal budget, military manpower costs represent about 8.1 percent, and, when civilian personnel costs are added, manpower is about 11.2 percent of the Federal budget. Does this not present a problem when one considers the merits of manpower costs versus the procurement of new weapon systems and facilities?

Answer: We feel that our resources to support military and civilian personnel should be examined on the basis of what is required to provide the numbers and quality of personnel that the department needs not as a ratio to total Federal spending. It would make little sense to invest in complicated weapon systems which would be poorly operated or maintained.

The resources requested in the President's budget reflect our best estimate of the proper balance between manpower and equipment.

Congressional Constraints on Recruit Quality

QUESTION: Your statement mentions that the quality standards mandated by Congress hinder management flexibility and require additional recruiting resources. Would you comment on the additional measures that the Services are required to take to assure compliance with the quality standards?

ANSWER: Many initiatives have been undertaken to improve the quality of recruits. The Department of Defense and the Services, with the support of Congress, have obtained improved compensation, more flexible enlistment bonuses, and more attractive educational incentives. All will help increase the number of high aptitude high school graduate enlistments -- especially in the Army, the Service facing the greatest challenge.

In addition, all of the Services have established quality goals for recruiting which will more than satisfy the Congressional constraints on recruit quality. The Services have raised their enlistment standards and are now screening out applicants who would have been eligible to enlist in FY 1980. Moreover, recruiting and advertising plans and programs are directed at the high quality markets focusing on high schools and colleges.

Estimated Cost of Complying with Recruit Quality Constraints

QUESTION: What is your estimate of the annual cost of complying with the quality standards?

ANSWER: Due to a number of closely related variables, it is very difficult to accurately estimate the specific recruiting costs associated with meeting the quality constraints. Increases in military pay over the past two years (to achieve comparability with the civilian sector), increases in recruiting resources (to include a more flexible bonus program and enhanced educational benefits), plus the economy made it possible for the Army to exceed the constraints in FY 1981 and FY 1982. This is contrasted with FY 1980 when about 50 percent of the Army non-prior service enlistees were in Category IV and less than 50 percent of the Army's male non-prior service enlistments were high school diploma graduates. The combination of a number of factors including expected improvements in the economy, continued decline in the youth population, current enlistment incentives, levels of recruiting resources and military pay could make meeting the constraints a major challenge in the future. However, even though there is much uncertainty about all of these factors and it is impossible to accurately predict the future, DoD and the Administration are committed to obtaining the number and type of recruits needed.

Public Attitude

QUESTION: Just how great an influence has been the change on the part of the public toward the military? Is this really considered by the young adult when he considers enlisting in our military services?

ANSWER: There has been a considerable attitudinal shift on the part of the American public toward supporting the military. Our market research surveys show that youth are influenced by such attitudes; and particularly look to advice about enlistment from teachers, counselors and parents.

To illustrate the possible effects of such a shift we can point to the increased applications, of very high quality applicants, for the Service academies and ROTC scholarships; the increases in ROTC units; and an increase in the numbers of high schools that agree to participate in the DoD High School Testing Program (wherein one million students per annum take the Armed Services Vocational Aptitude Battery). Further, the Commanders of our respective recruiting commands have stated that the overall public atmosphere has become much more supportive, and this has been a tremendous asset to their field recruiters.

Declining Youth Population

QUESTION: What are the facts concerning the declining youth population? What are we facing between now and 1990?

ANSWER: The attached chart reflects the changes in the primary recruiting market, 18 to 24 year old males, through the year 2000. Basically, the market decline continues through 1996 when it then starts to increase.

This decline will have an impact on recruiting. However, that decline will be ameliorated by a number of factors: the increasing numbers of women in the work force, the economy, and the competitiveness of the enlistment package versus civilian offerings and the public perception of the servicemember also are factors that will affect the enlistment decision.

PROJECTIONS OF 18 THRU 24 YEAR OLD MALE POPULATION OF THE UNITED STATES

YEAR	NUMBER	PERCENT CHANGE	PERCENT OF 1980	PERCENT OF 1981	PERCENT OF 1982	PERCENT OF 1996
1977	14,764,001	0.	98.5	98.5	98.6	122.4
1978	14,887,153	0.8	99.3	99.3	99.5	123.4
1979	14,993,712	0.7	100.0	100.0	100.2	124.3
1980	14,992,344	-0.0	100.0	100.0	100.2	124.3
1981	14,989,985	-0.0	100.0	100.0	100.1	124.2
1982	14,968,106	-0.1	99.8	99.9	100.0	124.1
1983	14,802,977	-1.1	98.7	98.8	98.9	122.7
1984	14,537,013	-1.8	97.0	97.0	97.1	120.5
1985	14,212,121	-2.2	94.8	94.8	94.9	117.8
1986	13,844,813	-2.6	92.3	92.4	92.5	114.7
1987	13,565,699	-2.0	90.5	90.5	90.6	112.4
1988	13,377,342	-1.4	89.2	89.2	89.4	110.9
1989	13,242,875	-1.0	88.3	88.3	88.5	109.8
1990	13,033,325	-1.6	86.9	86.9	87.1	108.0
1991	12,815,887	-1.7	85.5	85.5	85.6	106.2
1992	12,607,946	-1.6	84.1	84.1	84.2	104.5
1993	12,447,515	-1.3	83.0	83.0	83.2	103.2
1994	12,352,023	-0.8	82.4	82.4	82.5	102.4
1995	12,206,014	-1.2	81.4	81.4	81.5	101.2
1996	12,065,402	-1.2	80.5	80.5	80.6	100.0
1997	12,147,968	0.7	81.0	81.0	81.2	100.7
1998	12,423,378	2.3	82.9	82.9	83.0	103.0
1999	12,808,680	3.1	85.4	85.4	85.6	106.2
2000	13,220,335	3.2	88.2	88.2	88.3	109.6

PREPARED BY : OASD (MRA&L) MP&FM, ACCESSION POLICY

DATE PREPARED: 02/18/82

Advertising Resources

QUESTION: The size of Joint Service Advertising has recently been doubled. Now that we are essentially obtaining all the accessions that we need -- is now the time that economies can be effected and start reducing expenses of programs?

ANSWER: On the surface a reduction of advertising resources at a time when the Services are meeting their recruiting objectives seems to be a logical move. However, we must urge caution if you are considering a reduction to the fiscal year 1983 advertising budgets.

Service recruiting and advertising budget requests were significantly reduced in fiscal year 1976 below prior year levels as a result of the relative ease with with the Services were able to meet their recruiting objectives in the midst of high youth unemployment, competitive entry pay, highly valuable post-service educational benefits and a relatively high male propensity to exist. During the intervening period from 1977 to 1979 the competiveness of military service versus civilian opportunities declined. Only recently has the delicate balance of resources and unemployment been realigned. Our recruiting success in fiscal year 1981 and 1982 bear this out.

The Department has taken action to effect economies in the advertising area (i.e., the increase of joint advertising resulting in over $4 million annual savings). We are also planning the initiation of a large scale in-market field experiment to determine the proper mix and levels of joint and Service specific advertising. The results of the test may reveal further efficiencies and economies to the Department's advertising program.

The advertising resources requested for fiscal years 1983 reflect a slight increase over fiscal year 1981 levels. The advertising resources for 1983 show the Department's desire to boost our share of the declining male high school graduate market in the face of a very much more challenging and competitive market situation.

SUBCOMMITTEE RECESS

Senator **Stevens**. We will stand in recess until tomorrow morning at 10 o'clock.

[Whereupon, at 12:12 p.m., Wednesday, May 19, the subcommittee was recessed, to reconvene at 10 a.m., Thursday, May 20, 1982.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1983

THURSDAY, MAY 20, 1982

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The subcommittee met at 10:10 a.m., in room 1114, Everett McKinley Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens and Rudman.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE ARMY

STATEMENT OF MAJ. GEN. STAN F. SHERIDAN, ASSISTANT DEPUTY CHIEF OF STAFF FOR RESEARCH, DEVELOPMENT AND ACQUISITION

ACCOMPANED BY:

- MAJ. GEN. RICHARD W. ANSON, CHIEF, ARMY FORCE MODERNIZATION OFFICE, OFFICE OF THE DEPUTY CHIEF OF STAFF FOR OPERATIONS AND PLANS
- MAJ. GEN. LOUIS C. MENETREY, DIRECTOR OF REQUIREMENTS, OFFICE OF THE DEPUTY CHIEF OF STAFF FOR OPERATIONS AND PLANS
- BRIG. GEN. PHILLIP H. MASON, DEPUTY DIRECTOR, COMBAT SUPPORT SYSTEMS, OFFICE OF THE DEPUTY CHIEF OF STAFF FOR RESEARCH, DEVELOPMENT AND ACQUISITION
- BRIG. GEN. DONALD S. PIHL, DEPUTY DIRECTOR OF WEAPONS SYSTEMS, OFFICE OF THE DEPUTY CHIEF OF STAFF FOR RESEARCH, DEVELOPMENT AND ACQUISITION

ARMY MODERNIZATION

WEAPONS MODERNIZATION PROGRAM

Senator STEVENS. Good morning, gentlemen. Sorry to be a little late, we have just finished another hearing. I am happy to have you here this morning on the Army's weapons modernization program.

We have supported substantial increases in both development and acquisition, but there is now growing concern on the committee that the overall costs of bringing in so many new systems at one time—literally in less than a decade—may be more than our budget limitations can accommodate.

There are some real problems developing on modernization—cost overruns, program delays, rapidly expanding support costs. We want to try to explore some of this as much as time permits. I think you are all familiar with the rising, sharply rising, development and acquisition costs now showing up in your budget.

BUDGET REQUEST

The fiscal year 1983 request for procurement of $17.8 billion and the estimate for R.&D. of $4.5 billion are 67 percent above the 1981 level. Current weapons acquisition planning will drive these accounts even higher over the next 4 to 5 years in our opinion, less evident but even more dramatic cost increases for operating and supporting these systems will occur before this decade is over.

So, we want to start examining not only these weapons systems themselves, but the Army's ability to manage them. The capacity of the budget not only to absorb them, but to afford them for operations purposes once they are acquired.

With that, General Sheridan, I want to assure you that we are not antagonists. We find the unwelcome task of trying to comply with the budget directives of the full Congress—the Senate first and the full Congress later. That is going to take some hard decisions on our part that we would like to have your assistance on, helping us formulate opinions as to what priority should be in this budget in the event we have to make some substantial reductions.

General, your full statement will be printed in the record. We will be happy to have you highlight in any way you desire. I assume that the reporter does have the names of the other gentlemen with you. If you have anyone else participating, we would appreciate if you would identify them for the record.

Thank you very much.

ARMY RESEARCH, DEVELOPMENT, AND PROCUREMENT PROGRAMS

General **Sheridan**. Thank you very much, Mr. Chairman.

Let me say, it is a pleasure for us to appear before your committee this morning in order to make some very short presentations on selected subjects which we were informed the committee is interested in. But most importantly, we want to respond to your questions about how the Army is managing its research, development, and procurement programs in general, why we need selected items of equipment, and how we are going about the chore of managing the modernization which you just described.

Can I have those two charts, please?

SYSTEMS FOR DISCUSSION

0 M1 ABRAMS TANK
0 M2/M3 BRADLEY FIGHTING VEHICLE
0 AH-64 AND HELLFIRE
0 ARMY HELICOPTER IMPROVEMENT PROGRAM
0 PATRIOT

0 VIPER
0 BATTLEFIELD DATA SYSTEMS
0 REMOTELY PILOTED VEHICLES

0 RATTLER
0 LIGHT WEIGHT AIR DEFENSE SYSTEMS
0 JOINT SERVICES VERTICAL AIRCRAFT
0 LASERS

CHART 1

FY 83 BUDGET REQUEST
($ IN MILLIONS)

	FY 81	FY 82	FY 83
• **PROCUREMENT**	10,522	14,172	17,830
AIRCRAFT	(1,203)	(1,936)	(2,746)
MISSILES	(1,545)	(2,155)	(2,847)
WCTV	(3,374)	(4,002)	(5,031)
AMMO	(1,559)	(2,303)	(2,639)
OPA	(2,841)	(3,726)	(4,567)
NATIONAL GUARD	(-0-)	(50)	(-0-)

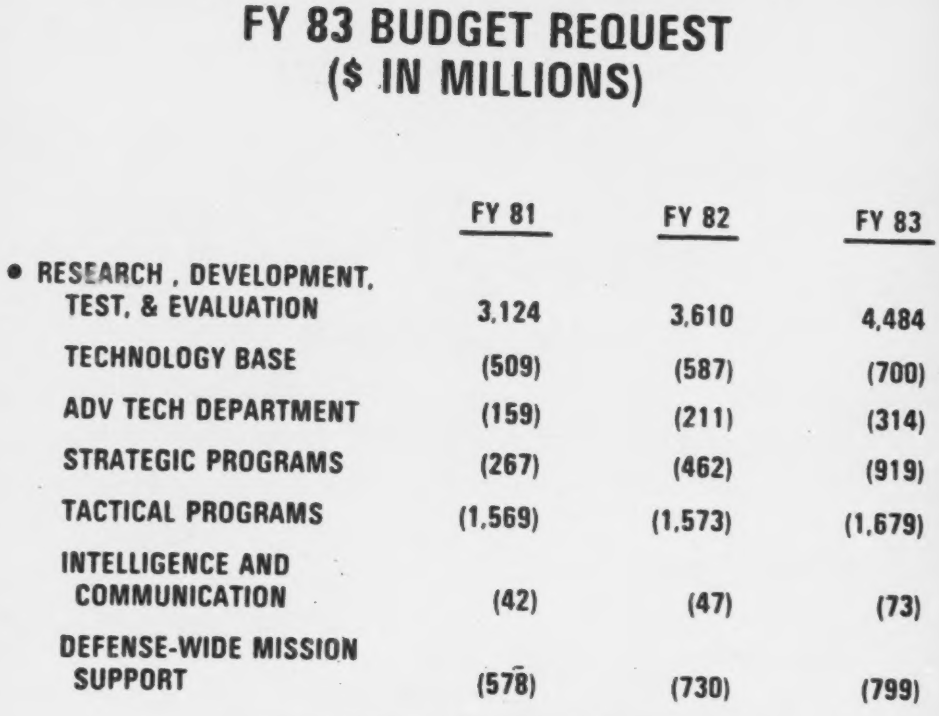
CHART 2

TRENDS IN ARMY MODERNIZATION

We are most encouraged, though, by the favorable trend started by the 1981 supplemental and the 1982 amended budget. If those trends are continued I think we can all be assured of fielding a modernized Army that can cope with a variety of potential conflicts.

These two charts, which summarize the Army's procurement and R&D budgets for 1981 through 1983, clearly show those trends.

We also recognize that you are in the midst of dealing with a myriad of budget issues which have far-reaching implications in every sector of our country. We understand the complexities of your task and trust that our appearance here today will serve to assist you in resolving questions that you may have about selected Army programs, and at the same time assure you that we are efficiently managing the resources with which we are entrusted.



FY 83 BUDGET REQUEST
($ IN MILLIONS)

	FY 81	FY 82	FY 83
• RESEARCH , DEVELOPMENT, TEST, & EVALUATION	3,124	3,610	4,484
TECHNOLOGY BASE	(509)	(587)	(700)
ADV TECH DEPARTMENT	(159)	(211)	(314)
STRATEGIC PROGRAMS	(267)	(462)	(919)
TACTICAL PROGRAMS	(1,569)	(1,573)	(1,679)
INTELLIGENCE AND COMMUNICATION	(42)	(47)	(73)
DEFENSE-WIDE MISSION SUPPORT	(578)	(730)	(799)

WEAPON SYSTEM PROCUREMENT PLANS

This is a list of systems that your staff indicated would have special interest to you today during the hearing. It is also my understanding that the committee has special concerns about weapon system procurement plans, how they tied to Air-Land Battle 2000; the light division concepts, as well as the fielding aspects of modernization management.

INTRODUCTION OF ASSOCIATES

I have with me two experts in those last areas who should be able to discuss the subject in detail. On my far right, is Maj. Gen. Louis Menetrey, who is the Director of Requirements for the Deputy Chief of Staff for Operations and Plans, and on my far left is Maj. Gen. Richard Anson who is our Chief of Force Modernization for the Deputy Chief of Staff for Operations and Plans.

Directly on my right is Brig. Gen. Phillip Mason, who is assigned to the Combat Support Directorate of my agency, and on my left is Brig. Gen. Donald Pihl who is also assigned to my agency in the Weapons Systems Directorate. These two gentlemen will discuss the items that are shown on the chart.

This concludes my introductory remarks, Mr. Chairman. With your permission I would like to ask the two generals on the right and left of me to very, very briefly—1 or 2 minutes for each of the subjects—to walk down through the items on the viewgraph so that we can have enough time to answer your questions.

[The prepared statement of Maj. Gen. Stan R. Sheridan follows:]

PREPARED STATEMENT OF MAJ. GEN. STAN B. SHERIDAN

ASSISTANT DEPUTY CHIEF OF STAFF

RESEARCH, DEVELOPMENT AND ACQUISITION

This is my first appearance before this committee and it is a privilege to be here to help explain how our Army proposes to arm and equip itself. I look forward to working with you to meet our common goal--that of providing a first rate Army--capable of meeting the threat of the 1980's and beyond.

In past years witnesses before this committee often referred to Army budget requests as "austere" and "severly constrained." We will not use those words today because the recent budget increases represented by the FY 81 supplemental and FY 82 amendment were important first steps toward resolving significant deficiencies in our modernization program. They also enabled us to stabilize many programs--the primary requisite to achieve cost discipline and cost control. Those measures permitted increased funding and improved production efficiency on our most critical items. This favorable trend must be continued if we are to insure that the gap that exists between Soviet forces and ourselves does not widen. The Army's budget contains a combined procurement and RDT&E budget request of $22.3 billion for FY 83. We will use these dollars to field an Army with improved near term readiness, to modernize the force, and to support research and development. A summary of the RDT&E and procurement budget requests are attached as Inclosure 1. The specific subjects that are understood to be of special interest to the committee are shown at Inclosure 2.

Near-term readiness is a must. This is because we simply do not know when or where our nation might be confronted or challenged by an enemy. We do know, however, that our Army must be prepared to defend our national interests whenever and wherever they are threatened. Today the Army is short a large amount of equipment which is needed to bring units up to strength and to fill war reserve stocks. There are units today--Active, National Guard, and Army Reserves--which simply do not have all of the equipment they should have. Reduction of these equipment shortages in the force must take highest priority. To accomplish this, additional quantities of current equipment must be procured as quickly as possible.

The requirement to equip our Army takes on increased importance when one considers the quantity of equipment the Soviets have produced and are producing as a result of an enormous investment program. Today the Soviets outinvest and outproduce us by a two-to-one margin in most categories of military equipment.

Just as the Soviet numerical advantage increases the importance of equipping our Army, the additional threat posed by the ever-increasing quality of Soviet weapons dictates a need to accelerate our modernization effort. Our central focus is the attainment of a balanced and flexible force which capitalizes on the technologies of precision guided munitions, compound armor, microelectronics, nuclear and chemical weapons, and rapid mobility.

To put our modernization requirement in proper perspective, it is necessary to consider what has happened in the past. During the late 1960's and early 1970's the conflict in Southeast Asia diverted the nation's attention and resources. The Soviet Union exploited this opportunity to mount the most massive modernization effort any nation has ever undertaken in peace time. During the decade of the 1970's, total Soviet expenditures for procurement exceeded our outlays by approximately 75 percent and their research and development expenditures were approximately 50 percent higher. The result was predictable. The combination of high procurement rates and sustained investment in R&D has closed and, in many cases, eliminated the quality advantage on which we depended.

The Army's research and development efforts of the past decade are now coming to maturity. We have pursued a program that will enable us to regain the qualitative edge, and we believe we have accomplished that objective. Today we have systems such as the M1 Abrams Tank, the BLACK HAWK helicopter, and the Stinger Air Defense Missile in production and in the field. Other systems such as the Multiple Launch Rocket System (MLRS), the Infantry Fighting Vehicle (IFV), the Division Air Defense (DIVAD) Gun, and the Advanced Attack Helicopter (AAH) are headed for full production.

We are proud of the systems that have been developed during the 1970's; however, it would be incorrect if we led you to believe that the Army's materiel acquisition philosophy dictates a new development program for every change in the threat. On the contrary, we recognize that we live in a world of constrained resources and must take maximum advantage of the investment we have made in fielded systems. To do this we have used, and will continue to use, product improvement programs that are designed to build on those systems which are already in the inventory.

The M60 series tank--a product of the late 1950's--is one example of evolutionary development through product improvement. Improvements which have been made to the basic M60 tank include engine changes which have upgraded reliability and maintainability, a stabilization system for shoot-on-the-move capability, and passive infrared sights to improve night vision. The latest version, the M60A3, incorporates a laser rangefinder, thermal sights which penetrate darkness and obscurants, and a ballistic computer which automatically lays the gun for the correct range and lead angle. The result is a 20-year tank which continues to be a formidable opponent on today's battlefield.

The CH-47 Chinook medium-lift helicopter, which was fielded in 1962, is another example of our product improvement program. The modernization program currently underway will extend the useful life of the CH-47 fleet beyond the year 2000. The Chaparral and Hawk Air Defense Systems, the TOW Anti-Armor Missile, and the COBRA Attack Helicopter are but a few of many other systems which have had their operational capabilities upgraded and lifetimes extended by product improvement.

It must be recognized, however, that the improvement potential of any given system is limited. For example, some of our current air defense systems were simply not designed to function in the sophisticated electronic countermeasures environment which the Soviets are presently capable of establishing. They are also incapable of multiple target track/multiple engagement operations. The technology which makes that capability possible did not exist 20 years ago, and it is impractical to attempt to build it into an obsolete system. Therefore, we had to develop new, more capable weapons. In large measure, Patriot, the Division Air Defense (DIVAD) Gun, and Stinger, the products of the decade of successful research and development we referred to earlier, are ready to fill the gaps where older systems are inadequate, and where the potential for improvement has been exhausted.

Although we strongly believe that we should use our nation's technological strengths to counter the Soviet Union's quantitative advantage, you should be aware that our acquisition philosophy also considers the impact of "complexity" and "sophistication." Some contend that our new systems are too complex and sophisticated. Unfortunately, these terms are often mistakenly used synonomously. Complex by our dictionary translates to complicated and what is complicated in terms of operation or maintenance is to be avoided. Sophisticated equipment, on the other hand, takes advantage of the best features of advanced technology. Such sophisticated equipment can be made easy to operate and maintain. For example, the checkout counter at your local supermarket is sophisticated. It depends on the complexities of laser scanners, holography--three dimensional imaging--and micro computers. However, the operation is fast, simple, and accurate, and repairs are normally based on a simple modular replacement concept. We try to apply the same logic in developing our military systems that range from a relatively simple laser rangefinder to the automatic search and track radar of the Division Air Defense (DIVAD) Gun. Our objective is to use the best features of technology to obtain greater simplicity for the operator and maintainer. We understand that the country cannot afford an Army of PhD's to operate its sophisticated equipment. The average American soldier must be able to operate and maintain it.

It is true that sophistication increases the cost of our equipment. Therefore, we must insure that we do not ask for more than we require or pursue technology that is unnecessarily complex. On the other hand, we must use sophistication when it makes sense to achieve the necessary effectiveness and survivability in battle. For example, night vision and thermal imaging devices are expensive, and systems such as the M1 Tank, the Infantry Fighting Vehicle, and the Advanced Attack Helicopter would cost less without them. To eliminate them, however, would deprive our soldiers of a necessary capability that gives them an edge on the battlefield.

During the FY 82 authorization and appropriation process you provided us with several tools which we believe will help us to improve our management efficiency. We especially appreciate your actions to:

- Expand the authority for multi-year contracting and increase the cancellation ceiling.
- Raise the ceiling under which the service secretaries may delegate approval authority for negotiation of contracts for experimental, developmental or research work.

o Raise the reprogramming thresholds for both R&D and procurement programs.

In summary, we realize that when the nation is reducing the amount of money which is going into other federal programs, it is only right that the defense program receive intense scrutiny. Further, we accept that it is clearly our responsibility to insure that we are spending the taxpayers' dollars as carefully as we can, and to see that the Army gets the best return on each dollar it invests in weapons and equipment.

We understand and appreciate that Congress must fund not only for defense needs but also for many other programs which relate to the well-being of this country and its citizens. To assist you in your efforts the Army is determined to do the best we can to efficiently manage the resources that you make available to us, while equipping and modernizing an Army that can fight and win.

PROCUREMENT AND RDT&E

FY 83 BUDGET REQUEST

($ IN MILLIONS)

	FY 81	FY 82	FY 83
o PROCUREMENT	10,522	14,172	17,830
AIRCRAFT	(1,203)	(1,936)	(2,746)
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SUBJECTS OF SPECIAL INTEREST:

- MODERNIZATION MANAGEMENT
- HIGH TECHNOLOGY LIGHT DIVISION

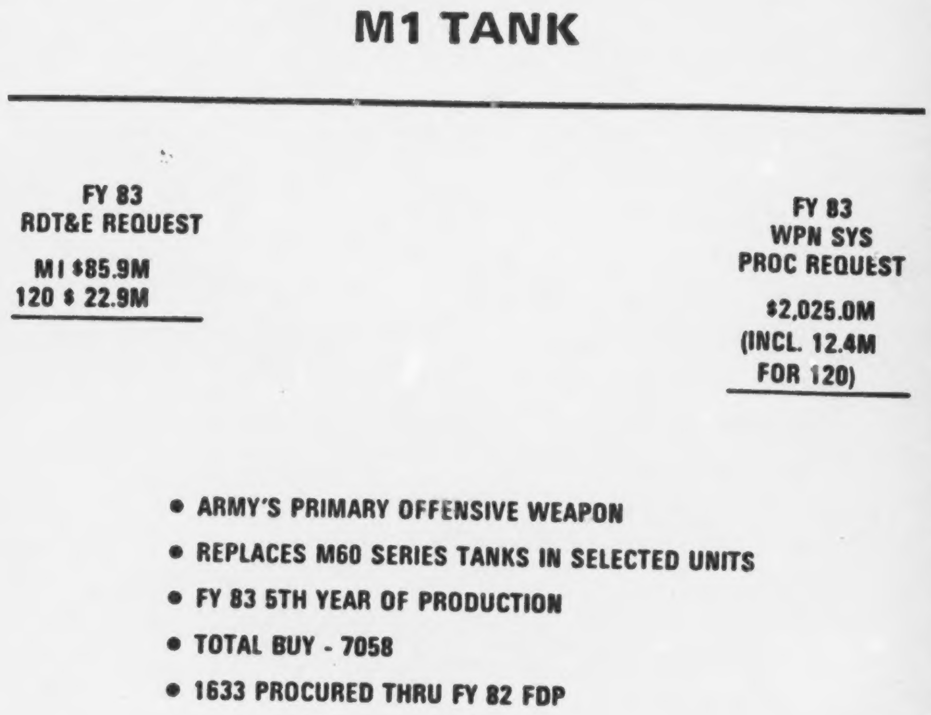
SYSTEM DISCUSSIONS:

- M1 TANK
- M2/M3 FIGHTING VEHICLE
- AH-64 ATTACK HELICOPTER
- ARMY HELICOPTER IMPROVEMENT PROGRAM
- VIPER
- BATTLEFIELD DATA SYSTEMS
- REMOTELY PILOTED VEHICLE
- JOINT VERTICAL LIFT AIRCRAFT
- LASER PROGRAMS

Senator STEVENS. Thank you very much, General.

General PIHL. Mr. Chairman, I will address the Army's initiatives regarding the procurement of the M-1 Abrams tank; the M-2 and M-3 Bradley Fighting Vehicle Systems; the AH-64 Apache helicopter; the Hellfire missile; the Army helicopter improvement program [AHIP], and the Patriot Air Defense System.

In research and development—following General Mason—I will touch on the Rattler, the light weight air defense system, LADS, the joint service vertical aircraft development program—or JVX—and finally a couple of words on the Army laser program.



M1 TANK

FY 83
RDT&E REQUEST

M I $85.9M
120 $ 22.9M

FY 83
WPN SYS
PROC REQUEST

$2,025.0M
(INCL. 12.4M
FOR 120)

- ARMY'S PRIMARY OFFENSIVE WEAPON
- REPLACES M60 SERIES TANKS IN SELECTED UNITS
- FY 83 5TH YEAR OF PRODUCTION
- TOTAL BUY - 7058
- 1633 PROCURED THRU FY 82 FDP

CHART 4

M-1 TANK PROGRAM

First, I would like to talk about the M-1 tank program. Our M-1 budget request for fiscal year 1983 and current program status is as shown. The budget of $2.025 billion fully funds 776 M-1's we are requesting in fiscal year 1983, along with their initial spare parts. It also funds advanced procurement needs for fiscal year 1984.

M1 TANK FY 83 BUDGET REQUEST

PROVIDES FOR:

- **PROCUREMENT OF 776 M1's**
- **CONTINUED DEVELOPMENT OF M1E1**

CHART 5

120-MM GUN M-1 TANK

The RDT&E request of $96.7 million is for the continued development of the M1E1, or the 120-mm gun M-1 tank.

M2/M3 BRADLEY FIGHTING VEHICLE

FY 83
RDT&E REQUEST

50.5 M

FY 83
WPN SYS
PROC REQUEST

$1,010.4M

- **CROSS COUNTRY MOBILITY, INCREASED PROTECTION, & VEHICULAR MOUNTED FIREPOWER**
- **COMPLEMENTS M1 TANK**
- **FY 83 - FOURTH YEAR OF PRODUCTION**
- **TOTAL BUY 6,882**
- **1,100 PROCURED THRU FY 82 FDP**

CHART 6

BRADLEY FIGHTING VEHICLE

The M-2 and M-3 Bradley fighting vehicle provides exceptional mobility, fire power, and increased protection for the soldier. Furthermore, it is an ideal partner for the M-1 tank on the battlefield. The Army's fiscal year 1983 procurement request for 600 vehicles constitutes our fourth year of Bradley production.

M2/M3 FY 83 BUDGET REQUEST

PROVIDES FOR:

- PROCUREMENT OF
  - 600 VEHICLES
  - 532 GUNS, 25MM
  - 2.5M ROUNDS AMMUNITION, 25MM
  - SPARES
- FIELDING OF M2/M3 IN CONUS & EUROPE
- DEVELOPMENT - TOW 2 & NBC MODIFICATIONS

CHART 7

SUMMARY OF BUDGET PROVISIONS

This chart summarizes the provisions of our fiscal year 1983 budget request. In addition to buying 600 vehicles we will purchase the guns, ammunition, and spares to support fielding of the Bradley. This month we will start fielding the Bradley at our training bases at Fort Benning and Fort Knox. This will be followed in March with the equipping of our first battalion at Fort Hood, Tex., and 6 months later we will equip our first battalion in Europe.

AH-64 APACHE

FY 83
RDT&E REQUEST
$33.7M

FY 83
WPN SYS
PROC REQUEST
$955.0M

- **ARMY'S MOST MOBILE DAY/NIGHT TANK KILLER**
- **FY 83 - 2ND YEAR OF PRODUCTION**
- **TOTAL BUY - 446**
- **11 PROCURED IN FY 82**

CHART 8

ATTACK HELICOPTER

Turning to the Army's need for an attack helicopter which can operate near to the Earth, acquire targets, and kill tanks day or night in adverse weather anywhere in the world, the AH-64 is what the Army needs.

AH-64 FY 83 BUDGET REQUEST

PROVIDES FOR:

- PROCUREMENT - 48 AH - 64's
- ADVANCE PROCUREMENT - 36 AH - 64's FOR FY 84
- DEVELOPMENT AND QUALIFICATION OF TEST PROGRAM SETS FOR AUTOMATIC TEST EQUIPMENT
- QUALIFICATION OF COMPOSITE MAIN ROTOR BLADE

Chart 9

AH–64 APACHE HELICOPTER

On April 15, 1982, the Army signed a production contract for the first 11 aircraft. Our fiscal year 1983 budget request for the AH–64 Apache has $965 million for procurement of 48 helicopters, and the RDT&E request provides for continued development of a composite main rotor blade and automatic test equipment software.

HELLFIRE

FY 83
RDT&E REQUEST
$19.3M

FY 83
WPN SYS
PROC REQUEST
$267.5M

- **LONG RANGE ANTIARMOR WEAPON**
- **AIR AND GROUND LAUNCH**
- **DIRECT/INDIRECT FIRING MODE**
- **FY 83 - 2D YEAR OF PROCUREMENT**
- **TOTAL BUY OF 35,756 MISSILES**
- **680 PROCURED THRU FY 82 FDP**

CHART 10

APACHE WEAPON SYSTEM

The weapon system for the Apache is the Hellfire modular missile system, and it is the follow-on Heliborne antiarmnor missile to the TOW. Our current program status is as shown.

HELLFIRE FY 83 BUDGET REQUEST

PROVIDES FOR:

- **PROCUREMENT OF**

  3971 MISSILES

  338 LAUNCHERS

- **TESTING OF MINIMUM SMOKE MOTOR AND DEICING KIT**

CHART 11

PRODUCTION HARDWARE

Our fiscal year 1983 budget request for $267.5 million in procurement and $19.3 million in RDT&E provides us these items. Furthermore, the first production hardware will begin delivery in fiscal year 1983.

ARMY HELICOPTER IMPROVEMENT PROGRAM (AHIP)

FY 83 RDT&E REQUEST	FY 83 WPN SYS PROC REQUEST
75.8M	45.1M

- SCOUT HELICOPTER COMPATIBLE WITH APACHE AND COBRA ATTACK HELICOPTERS
- LASER DESIGNATION FOR HELLFIRE, COPPERHEAD, AND OTHER PRECISION GUIDED MUNITIONS
- PROVIDES PLATFORM FOR FA OBSERVATION
- DEVELOPMENT INITIATED IN FY 81
- FY 83 - PROCUREMENT OF LONG LEAD ITEMS
- TOTAL BUY - 578

Chart 12

AHIP PROGRAM

The army helicopter improvement program, or AHIP, is a modified OH-58 helicopter. It will provide an improved Scout helicopter compatable with the Apache and Cobra attack helicopters. It features a day-night capable, mast-mounted sight and will provide command and control target acquisition and laser designation for Hellfire and Copperhead.

AHIP FY 83 BUDGET REQUEST

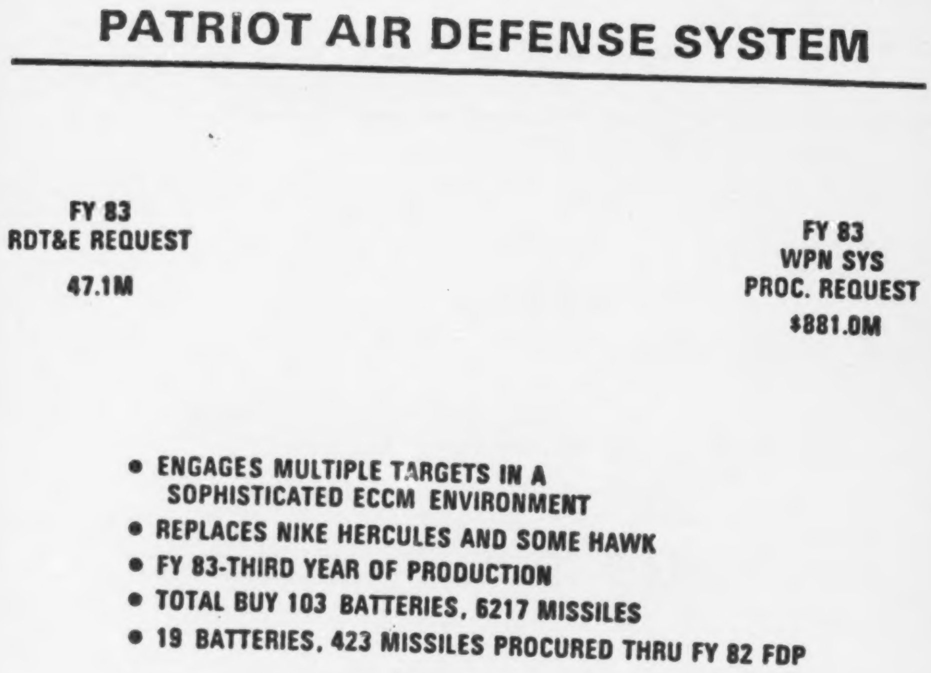
PROVIDES FOR:

- **LONG LEAD PROCUREMENTS**
- **INTEGRATED LOGISTICS SUPPORT**
- **ASSEMBLY OF 5 PROTOTYPE AIRCRAFT**
- **CONTINUATION OF DEVELOPMENT**

Chart 13

FULL-SCALE ENGINEERING DEVELOPMENT

Our fiscal year 1983 budget request of $75.8 million for RDT&E will provide for continuation of full-scale engineering development. The $45.1 million in procurement funds will cover the cost of numerous low-risk, long lead items such as engines, transmission components, and microprocessor chips.



PATRIOT AIR DEFENSE SYSTEM

FY 83
RDT&E REQUEST
47.1M

FY 83
WPN SYS
PROC. REQUEST
$881.0M

- ENGAGES MULTIPLE TARGETS IN A SOPHISTICATED ECCM ENVIRONMENT
- REPLACES NIKE HERCULES AND SOME HAWK
- FY 83-THIRD YEAR OF PRODUCTION
- TOTAL BUY 103 BATTERIES, 6217 MISSILES
- 19 BATTERIES, 423 MISSILES PROCURED THRU FY 82 FDP

CHART 14

PATRIOT SURFACE-TO-AIR MISSILE

The Patriot is a long-range surface-to-air missile system which will replace the Nike Hercules and some improved Hawk systems.

PATRIOT FY 83 BUDGET REQUEST

PROVIDES FOR:

- PROCUREMENT OF 12 BATTERIES AND 376 MISSILES
- SPARES
- FOLLOW ON TESTS
- PATRIOT ENHANCEMENT PROGRAM

CHART 15

BUDGET REQUEST

Our fiscal year 1983 budget request is as shown. Our budget request of $47.1 million for RDT&E and $881 million for procurement will provide the Army this equipment.

This concludes my preliminary, initial statement. I will now be followed by Gen. Phil Mason who will discuss Viper, Battlefield Data Systems, and the Remotely Piloted Vehicle.

VIPER PROGRAM

General MASON. Mr. Chairman, as General Pihl said, the first program that I would like to discuss is Viper.

JOINT LIGHTWEIGHT ANTIARMOR WEAPONS TEST AND EVALUATION

- JOINT TEST INTEGRATION WORKING GROUP
- JOINT COORDINATED TEST PLAN
- IDENTICAL TESTING AND TEST FACILITIES
- WEIGHT SPECTRUM
  - UP TO 30 LBS (USMC)
  - 14 LBS AND LESS (USA)

CHART 16

U.S. AND FOREIGN COMPETITION OF VIPER

Specifically, I would like to discuss the congressionally directed test and evaluation of U.S. and foreign competition of the Viper.

The Army, working with the U.S. Marine Corps, has a joint test integration working group working under OSD to satisfy this requirement. We are developing the joint coordinated test plan and, upon completion will submit it to the OSD for approval.

The U.S. Marine Corps and the U.S. Army will use identical testing and test facilities. The Marine Corps is primarily interested in those weapons weighing more than 14 pounds; the Army is interested in those weapons generally under 14 pounds.

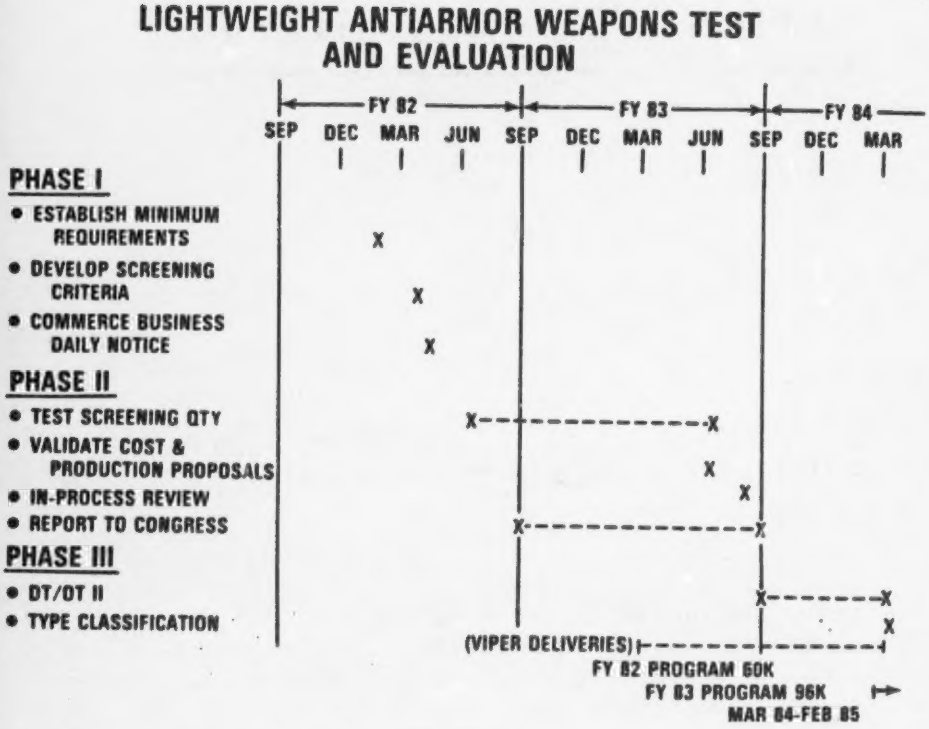


Chart 17

THREE-PHASE PROGRAM

Now, to accomplish this we have developed a three-phase program as depicted here. We are essentially through phase I which was advertised in the Commerce Business Daily on May 14. We are now ready to enter phase II.

The purpose of phase II is essentially to verify the basic performance of alternative weapons evaluated for such items as penetration, range, accuracy, and noise level. We will test approximately 70 rounds of each of the weapons that we test in phase II. Upon completion of the tests we will submit a report to Congress within 60 days on each of the weapons we tested.

Following phase II, for those weapons that pass through phase II, we will enter phase III, and of course have the DT/OT [development tests/operational tests] and a type classification.

BATTLEFIELD DATA SYSTEM (BDS)

FY 83
RDT&E REQUEST
$29.8M

- **PROVIDE DIVISION & CORPS COMMANDERS THE CAPABILITY TO LOCATE MOVING TARGETS BEYOND GROUND LINE OF SIGHT.**

Chart 18

The next system is the battlefield data system. As you recall, this is a new system that was created when the Congress terminated the standoff target acquisition system [SOTAS] program last year. The battlefield data system program will meet both the corps and division commanders' requirement. A ground station is used in this system which will be capable of receiving, processing, and displaying data from both Army and Air Force wide area moving target indicator radars.

BATTLEFIELD DATA SYSTEM (BDS)

CURRENT STATUS

- **OSD RSTA TASK FORCE**
  - **JOINT PROGRAM**
  - **SINGLE RADAR**
  - **MAXIMUM INTEROPERABILITY**

CHART 19

Recently, the OSD formed a Reconnaissance, Surveillance, and Target Acquisition Task Force. Membership to this task force to study the battlefield data system problem is made up of representatives of OSD, the Air Force, the Army, and the Defense Advanced Research Project Agency [DARPA].

The task force recommended and OSD has approved a joint program between the Army and the Air Force. The system will have a single radar. This radar will have a capability for a moving target indicator, a fixed target indicator, and will have a weapons guidance mode.

The total system, the Pave Mover Radar and the Battlefield Data System between the Army and the Air Force will have total interoperability. What this does is puts Pave Mover and BDS—Battlefield Data System—into one program. Thus the Army will have a single platform to perform both the corps and division commanders' job.

REMOTELY PILOTED VEHICLE (RPV)

FY 83
RDT&E REQUEST
$77.9M

- WILL EXTEND EYES OF COMBAT ELEMENTS TO FULL RANGE OF ARTILLERY DURING DAY, NIGHT & ADVERSE WEATHER
- PROGRAM BEING ACCELERATED
- FY 83 - FULL SCALE ENGINEERING DEVELOPMENT
- TOTAL BUY - 995 AIR VEHICLES - 74 GROUND SYSTEMS

CHART 20

REMOTELY-PILOTED VEHICLE

Next is the Remotely Piloted Vehicle. You recall, this is a small propeller-driven, remotely controlled aircraft. It carries a small TV camera and a laser designator. Later in its life it will have a forward-looking infrared night vision sensor added. The program is on schedule.

RPV FY 83 BUDGET REQUEST

PROVIDES FOR:

- CONTINUATION OF FLIGHT TESTING
- DELIVERY OF ONE SYSTEM TO THE 9TH INF DIV FOR TESTING
- INITIATION OF NIGHT VISION DEVELOPMENT

CHART 21

NIGHT VISION DEVELOPMENT

The first flight for RPV will occur this summer. In fiscal year 1983 flight testing continues and one system will be delivered to the 9th Infantry Division. The night-vision development starts in fiscal year 1983 and the program is fully funded in fiscal year 1983.

Sir, that concludes my portion of the presentation.

General PIHL. Very quickly, sir, turning to four R&D programs within the weapon systems arena.

RATTLER

FY 83
RDT&E REQUEST

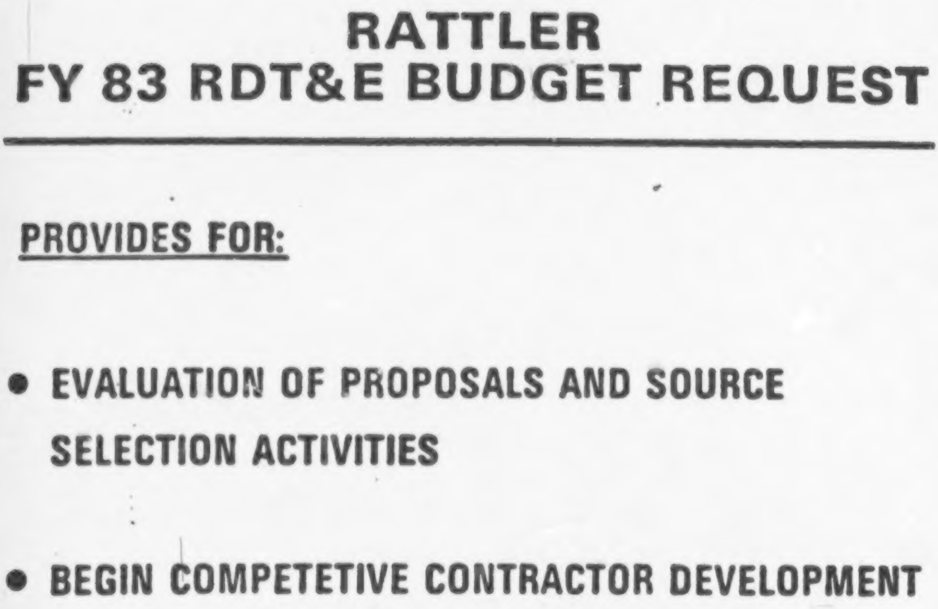
17.9M

- **MEDIUM MANPORTABLE ANTIARMOR MISSILE SYSTEM TO REPLACE DRAGON**
- [Deleted.]
- [Deleted.]
- **FY 82 - COMPLETE REQUIREMENT DEFINITION**
- **FY 83 - BEGIN COMPETETIVE DEVELOPMENT**

Chart 22

ANTIARMOR MISSILE SYSTEM

The Rattler, formerly known as the Improved Man Portable Antiarmor Weapons System, IMAAWS, is the Medium Antiarmor Missile System to replace Dragon. The Army has a vital need for a man-portable weapon such as the Rattler to fill the gap between Viper and TOW, especially in the rapid-deployment force and other light infantry.



RATTLER
FY 83 RDT&E BUDGET REQUEST

PROVIDES FOR:

- EVALUATION OF PROPOSALS AND SOURCE SELECTION ACTIVITIES
- BEGIN COMPETETIVE CONTRACTOR DEVELOPMENT

CHART 23

PROPOSAL FOR RATTLER DEVELOPMENT

Our fiscal year 1983 request of $17.9 million in RDT&E will permit us to proceed with our plan to release the request for proposal for the Rattler development in spring of 1983. We will receive industry proposals that summer, evaluate them, and award competitive development contracts for the most promising proposal that fall.

LIGHTWEIGHT AIR DEFENSE SYSTEM (LADS)

FY 83
RDT&E REQUEST
$3.5M

REQUIREMENTS

- **DAY/NIGHT CAPABILITY**
- **RAPID REACTION**
- **STRATEGIC, MEDIUM HELICOPTER AIRLIFTABLE**

ACCELERATED ACQUISITION STRATEGY

LIGHT DIVISIONS AIR DEFENSE FORCE STRUCTURE STUDY

CHART 24

LIGHT DIVISION AIR DEFENSE

The Army recognizes the urgent need to provide improved air defense for the light division. The next system, the LADS—the lightweight air defense system—is what we need to provide that defense

LADS
FY 83 RDT&E BUDGET REQUEST

PROVIDES FOR:

- **ISSUE RFP TO INDUSTRY FOR HARDWARE AND CONCEPT PROPOSALS**
- **EVALUATION OF PROPOSALS AND SELECTION OF ALTERNATIVES**
- **INITIATION OF DEVELOPMENT**

CHART 25

STRUCTURE STUDY

The fiscal year 1983 request for $3.5 million in RDT&E enables us to complete the light division air defense force structure study, issue a request for proposal to industry for concept and hardware proposals, and to evaluate industry's response.

Senator STEVENS. What is that, another helicopter?

General PIHL. No, sir, that would be a gun system for air defense, the LADS. We are looking at two options at this time in the 40 mm class, such as our heavy division DIVAD, or a variant of the Stinger system, a missile. So, at this time the Army is evaluating concepts for light divisions and air defense for those two types of systems.

Senator STEVENS. A ground-based system?

General PIHL. A ground-based system, yes, sir, to attack enemy aircraft.

JOINT SERVICES VERTICAL LIFT AIRCRAFT DEVELOPMENT PROGRAM JVX

FY 83
RDT&E REQUEST

$49.8M

J V X

- ADVANCED TECHNOLOGY VERTICAL LIFT AIRCRAFT
- MULTI MISSIONS - ALL SERVICES

  ARMY - INTELLIGENCE GATHERING SYSTEMS
  MARINES - VERTICAL LIFT ASSAULT
  NAVY - SEARCH & RESCUE & ASW

  AIR FORCE - MEDICAL EVACUATION & SPECIAL OPERATIONS
- FY 83 - FIRST YEAR OF DEVELOPMENT

CHART 26

JVX PROGRAM

Sir, the JVX program is a subject of particular interest within DOD. The Army has been designated the executive service by the Deputy Secretary of Defense. The object of this program is to develop a multimission aircraft with the earliest practical operational capability, capable of serving the needs of the Army, Navy, Marine Corps, and the Air Force.

JVX FY 83 RDTE BUDGET REQUEST

PROVIDES FOR:

- CONCEPTUAL TECHNOLOGY ASSESSMENT
- RFP PREPARATION AND EXECUTION
- JVX AIRFRAME CONTRACT
- INITIATION OF PMO AND AVRADCOM SUPPORT

CHART 27

JVX BUDGET

Fiscal year 1983 is the first year of development with a budget request of $49.8 million.

ARMY LASER WEAPONS

FY 83
RDTE REQUEST
$64.4M

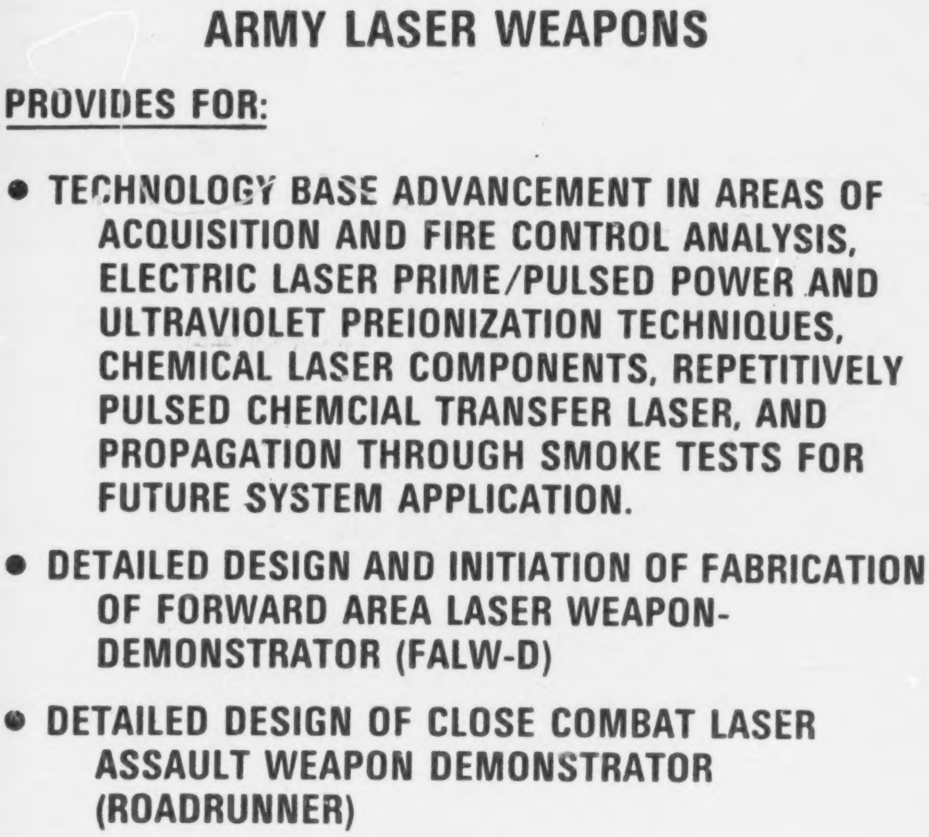
- **DEMONSTRATION OF FORWARD AREA LASER WEAPON AGAINST THREAT GROUND AND AIR WEAPONS SYSTEMS (FALW-D).**
- **FIELD DEMONSTRATION OF LASER WEAPON CAPABILITIES AGAINST THREAT.**
- **DEVELOPMENT OF LASER WEAPONS FOLLOWING CONCEPT DEMONSTRATIONS**
- **ADVANCE TECHNOLOGY BASE FOR FUTURE LASER WEAPONS APPLICATIONS**

CHART 28

LASERS

And finally, sir, a few words about lasers. The Army's high energy laser weapons program consists of the forward-area laser weapon, the close combat laser assault weapon, and the technology base.

The fiscal year 1983 laser program is outlined on this chart. This is a program whose idea has come. We are generally aware of what the other side is doing. Our exploratory development efforts have shown such promise that the Army is proceeding with an advanced development effort in our 1983 request.



ARMY LASER WEAPONS

PROVIDES FOR:

- TECHNOLOGY BASE ADVANCEMENT IN AREAS OF ACQUISITION AND FIRE CONTROL ANALYSIS, ELECTRIC LASER PRIME/PULSED POWER AND ULTRAVIOLET PREIONIZATION TECHNIQUES, CHEMICAL LASER COMPONENTS, REPETITIVELY PULSED CHEMCIAL TRANSFER LASER, AND PROPAGATION THROUGH SMOKE TESTS FOR FUTURE SYSTEM APPLICATION.
- DETAILED DESIGN AND INITIATION OF FABRICATION OF FORWARD AREA LASER WEAPON-DEMONSTRATOR (FALW-D)
- DETAILED DESIGN OF CLOSE COMBAT LASER ASSAULT WEAPON DEMONSTRATOR (ROADRUNNER)

CHART 29

TECH BASE ADVANCEMENT

Our budget request of $64.4 million will provide for our tech base advancement and for a detailed design of two demonstrators.

This concludes my presentation, sir. We appreciate the opportunity that we have had to present this committee a brief overview of the Army's modernization efforts and I think we are ready for your questions.

Senator STEVENS. Thank you very much. We have a series of votes that will be starting at 11, we will try to come back after those. I do not know whether we will be joined by other members this morning.

DEVELOPMENT COST CONTROL

What are you doing to minimize these development costs? We have all seen the development costs rising dramatically in each one of the weapon systems. Now, do you have and special control programs, General Sheridan, that you put into effect to control these costs growths?

General SHERIDAN. Yes, Mr. Chairman, there are several things that we are doing.

First of all, we are as concerned about the cost increases as you are. Specifically, we have had a very high level group headed up by our Vice Chief of Staff, to survey across the board what the problems appear to be in costs and how we can get a handle on them.

At the same time, the Development Command, which is really responsible for the development and fielding of our systems and is directly involved in costing, has put together a program, a management control system, which will report on each of our systems on a monthly basis in great detail as to where the costs are and where they appear to be going.

This should give us a warning as we follow the trends in a program as to what is likely to happen with costs, and not find ourselves in the situation we were in at the end of last year and the year before with a great surprise. Hopefully, that control system will do the kinds of things that you are looking for.

At the same time, within the Army staff itself we are again putting recurring reports, more visibility, into each of the programs. More analysis is being done both in my office and in the Comptroller's Office. There is an awareness today in the Army, a great awareness, that we are in trouble and we have got to take positive actions to control costs. I think we are trying to do that.

Senator STEVENS. What about the budgetary pressures once you acquire these new systems? You have your modernization program, you are going to have extremely higher operating costs, maintenance costs. What have you done to analyze the outyear budgetary pressures that this modernization program brings us?

General SHERIDAN. Sir, I will take an initial crack at that, and I may then ask to pass that question on to one of my cohorts.

We have started an indepth review of operating costs across each of our systems. As each system is reviewed at the Development Command and at the Project Manager's level they are looking and estimating and analyzing what each system will cost as it goes into the field. That analysis is then looked at in greater detail by the Army staff at the Comptroller's level and again in our shop.

I think at this point, though, I would like to turn, if I might, to some representatives who are with us from the Comptroller of the Army's office and ask them if they would expand on the answer to that question.

OPERATION COST OF M1

Senator STEVENS. Let me ask you before you do that, just take the M1, that has gone up from $600,000 a copy to about $2.5 million a copy. What is the operation estimate, how much has that gone up?

General SHERIDAN. If you look at the operation of an M1 itself compared with an M60, our estimate indicates something in the order of 18 to 19 percent increase in operating costs.

Senator STEVENS. The GAO has told us that the cost to operate and support a tank battalion will increase by 55 percent with the fielding of the M1. Do you disagree with that?

General SHERIDAN. Yes, we disagree with that, sir. We are aware of that data and are now analyzing it. Our numbers would not be that high. We feel the increase will be something less than 20 percent, closer to 12 to 15 percent. But I would defer that to some experts who are here with us, behind me.

Senator **Stevens**. All right.

General **Sheridan**. Apparently I have given a correct answer, sir.

Senator **Stevens**. I misstated myself, it was CBO, not GAO.

CBO BRIEFING

General **Sheridan**. Yes, sir, we are aware of that. We have a briefing at the Vice Chief's level by the CBO. We do have some charts. That briefing referred to the M1 tank and the Bradley Fighting Vehicle. The Comptroller's Office is in the process of analyzing that data. Some of the numbers I gave you are what is emerging from that analysis. We do not have the CBO's report other than that briefing. We are prepared to analyze it when we get the total report.

[The information follows:]

OPERATING AND SUPPORT COST ANALYSIS OF M-1 TANK AND FIGHTING VEHICLE SYSTEM

The following analysis of the M-1 tank and Fighting Vehicle System operating and support costs was prepared by the Congressional Budget Office and released March 23, 1982. The U.S. Army comment follows the analysis.

ESTIMATE OF OPERATING AND SUPPORT COSTS FOR M1 AND FVS BATTALIONS

METHODOLOGY

o WHILE MANY NEW SYSTEMS WILL BE FIELDED BY FISCAL YEAR 1987, CBO ESTIMATE COVERS ONLY THE TANK AND FIGHTING VEHICLE SYSTEM. THESE BATTALIONS ACCOUNT FOR 50 PERCENT OF ALL ACTIVE ARMY MANEUVER BATTALIONS.

o IN ABSENCE OF ARMY FIGURES, CBO HAS USED PLANNING FACTORS TO ESTIMATE THE OPERATING AND SUPPORT COSTS.

SUMMARY

- THE ARMY WILL BUY ENOUGH M1 TANKS AND FIGHTING VEHICLE SYSTEMS BY FISCAL YEAR 1987 FUNDED DELIVERY PERIOD TO EQUIP 50 TANK BATTALIONS AND 46 MECHANIZED INFANTRY BATTALIONS AND TO PROVIDE ASSETS FOR THE TRAINING BASE, MAINTENANCE FLOAT, AND WAR RESERVE STOCKS.

- CBO ESTIMATES THAT THE ADDITIONAL ANNUAL RECURRING COSTS TO OPERATE AND SUPPORT THESE MODERNIZED BATTALIONS WILL BE APPROXIMATELY $815 MILLION.

- CBO ESTIMATES THAT IF ALL THE ACTIVE TANK AND MECHANIZED INFANTRY BATTALIONS ARE MODERNIZED, THE ADDITIONAL ANNUAL RECURRING COSTS WILL BE APPROXIMATELY $1.1 BILLION.

BEST AVAILABLE COPY

OPERATING AND SUPPORT COST ELEMENTS

- o REPAIR PARTS
  - o MANEUVER BATTALION
  - o DEPOT LEVEL
  - o DIRECT SUPPORT MAINTENANCE BATTALION
- o PETROLEUM, OIL LUBRICANTS (POL)
- o MANPOWER
  - o MILITARY

REASONS FOR HIGHER OPERATING AND SUPPORT COSTS

M1 TANK

- -- INCREASE IN REPAIR PARTS AND POL CONSUMPTION BASED UPON OPERATIONAL TESTING
- -- TURBINE ENGINE VS DIESEL ENGINE
- -- INCREASE IN PERSONNEL

FVS

- -- INCREASE IN REPAIR PARTS AND POL CONSUMPTION
- -- 25 MM AMMUNITION INCREASES REQUIREMENT FOR CARGO CARRYING VEHICLES

OPERATING AND SUPPORT COST COMPARISON
(IN MILLIONS OF FISCAL YEAR 1982 DOLLARS)

TYPE BATTALION	CURRENT BATTALION OPERATING COST	OPERATING COST FOR MODERNIZED BATTALION	TOTAL OPERATING COST FOR MODERNIZED BATTALIONS	Δ
TANK BATTALION	M60 = 18.47	M1 = 28.6	50 BTNS = 1,430	507
MECHANIZED INFANTRY BATTALION	M113 = 19.54	FVS = 24.87	46 BTNS = 1,144	245
MAINTENANCE BATTALION, ARMORED DIVISION	31.67	37.7	4 BTNS = 151	24
MAINTENANCE BATTALION, MECHANIZED INFANTRY DIVISION	30.39	36.74	6 BTNS = 220	38
TOTAL			2,945	814

COSTS OF MODERNIZING ALL TANK AND MECHANIZED INFANTRY BATTALIONS
(In millions of fiscal year 1982 dollars)

Type Battalion	Number of Battalions A/	Current Battalion Operating Cost	Modernized Battalion Operating Cost	Difference
Tank Battalion B/	74	1,367	2,116	749
Mechanized Infantry Battalion	56	1,094	1,393	299
Maintenance Battalion, Armored Division	4	127	151	24
Maintenance Battalion, Mechanized Infantry Division	6	182	220	38
Total		2,770	3,880	1,110

A/ Active Army consists of 192 maneuver battalions.

B/ Includes 19 armored cavalry squadrons.

COMPARISON OF ESTIMATES FOR M1 AND FVS

	M60 A/	M1 Estimate Low A/	M1 Estimate High B/	M113 A/	FVS Estimate Low A/	FVS Estimate High B/
Total Battalion Operating Cost	18.47	23.26	28.6	19.54	20.33	24.87
Recurring Repair Parts	4.69	9.25	14.59	2.12	4.19	7.45
Average Unit Cost (Procurement)	0.684	2.03	2.03	0.120	0.945	0.945
Procurement Cost of Battalion Equipment	50	123.3	123.3	25.8	61.7	61.7
Repair Parts as a Percentage of Total Equipment Cost	9.4	7.5	11.8	8.2	6.8	12

A/ Data Source: Force Cost Information System, U.S. Army Comptroller.

B/ Data Source: Army Modernization Information Memorandum and CBO assumptions.

TANK BATTALION (IN MILLIONS OF FISCAL YEAR 82 DOLLARS)

	M60A1 A/	M1 A/ LOW	M1 HIGH
REPAIR PARTS & FUEL B/	2.4	4.21	9.55 D/
MILITARY PERSONNEL	8.13	8.26	8.26 E/
OTHER OMA FUNDED ITEMS C/	5.65	5.75	5.75 F/
SPARES (PROCUREMENT FUNDED)	2.29	5.04	5.04
TOTAL	18.47	23.26	28.6
% CHANGE OVER M-60		(26%)	(55%)

A/ DATA SOURCE: FORCE COST INFORMATION SYSTEM, U.S. ARMY COMPTROLLER.

B/ REPAIR PARTS AND FUEL INCLUDE P_2 MISSION, P_2 BASE OPERATIONS AND P_7M FUNDS.

C/ OTHER OMA FUNDED ITEMS INCLUDE MOS TRAINING, SUPPLY, AND BATTALION OVERHEAD COSTS.

D/ DATA SOURCE: ARMY MODERNIZATION INFORMATION MEMORANDUM.

E/ INCREASE OF 10 PEOPLE AS COMPARED TO M60"J" SERIES BATTALION.

F/ ESTIMATE BASED UPON CHANGE IN MILITARY PERSONNEL ACCOUNT.

MECHANIZED INFANTRY BATTALION
(IN MILLIONS OF FISCAL YEAR 82 DOLLARS)

	M113 A/	FVS A/ LOW	FVS HIGH
REPAIR PARTS & FUEL B/	1.11	1.8	4.04 D/
MILITARY PERSONNEL	11.45	10.8 E/	11.45 F/
OTHER UMA FUNDED ITEMS C/	5.97	5.34	5.97 G/
SPARES (PROCUREMENT FUNDED)	1.01	2.39	3.41 H/
TOTAL	19.54	20.33	24.87
% CHANGE OVER M113		(4%)	(27%)

A/ DATA SOURCE: FORCE COST INFORMATION SYSTEM, U.S. ARMY COMPTROLLER.

B/ REPAIR PARTS & FUEL INCLUDE P_2 MISSION, P_2 BASE OPERATIONS, AND P_7 M FUNDS.

C/ OTHER UMA FUNDED ITEMS INCLUDE MOS TRAINING, SUPPLY, AND BATTALTION OVERHEAD COSTS.

D/ DATA SOURCE: ARMY MODERNIZATION INFORMATION MEMORANDUM.

E/ DECREASE OF 47 PEOPLE AS COMPARED WITH M113"J" SERIES BATTALION.

F/ ESTIMATE INCLUDES ADDITIONAL MAINTENANCE PERSONNEL.

G/ ESTIMATE BASED UPON CHANGE IN MILITARY PERSONNEL ACCOUNT.

H/ SCALED BY PROCUREMENT COST OF FVS.

MAINTENANCE BATTALION ARMORED DIVISION
(IN MILLIONS OF FISCAL YEAR 1982 DOLLARS)

	ESTIMATE TO SUPPORT M60 A/	ESTIMATE TO SUPPORT M1 B/
REPAIR PARTS & FUEL	1.28	5.09
MILITARY PERSONNEL	18.19	18.48
OTHER OMA FUNDED ITEMS	10.74	10.93
SPARES (PROCUREMENT FUNDED)	1.46	3.2
TOTAL	31.67	37.7
% CHANGE		(19%)

A/ FORCE COST INFORMATION SYSTEM, U.S. ARMY COMPTROLLER.

B/ ESTIMATES ARE BASED UPON THE CHANGE IN THE COSTS AT THE ORGANIC TANK BATTALION.

MAINTENANCE BATTALION MECHANIZED INFANTRY DIVISION
(In millions of fiscal year 1982 dollars)

	Estimate to Support M113 A/	Estimate to Support FVS B/
Repair Parts & Fuel	1.2	4.37
Military Personnel	16.87	16.87
Other OMA Funded Items	10.98	10.98
Spares (Procurement Funded)	1.34	4.52
TOTAL	30.39	36.74
% Change		(21%)

A/ Force Cost Information System, U.S. Army Comptroller.

B/ Estimates are based upon the change in the costs at the organic mechanized infantry battalion.

TANK BATTALION (ANNUAL RECURRING O&S COSTS IN MILLIONS OF FISCAL YEAR 1983 DOLLARS)

	Army a/ M60 A1	Army a/ M60 A3	Army a/ M1 Low	M1 High	Comments on High Estimate
P_2M Repair Parts	1.811	2.137	2.745	5.389	Derived from AMIM Data b/
P_2B Repair Parts	.142	.142	.144	.144	FCIS Data
P_7M Repair Parts	1.088	1.088	1.572	3.24	Scaled using ratio at P_2M level between M1 High and M60A1
Repair Parts + Fuel	3.041	3.367	4.461	8.773	Subtotal
Other	6.144	6.147	6.65	6.65	FCIS Data; includes MOS training, supply, medical, and overhead
Spares (Procurement Funded)	3.05	3.588	4.6	5.92	Scaled using unit procurement costs of $1,066,846 for M60A3 and $1,658,167 for M1(FY81 constant $)
MPA	8.88	8.88	8.99	8.99	FCIS Data for 593 M60 Btn; 603 M1 Btn
Total	21.115	21.982	24.701	30.33	
Percent Change		4	17/12	44/38	

a/ The source of the Army cost estimates is the Force Cost Information System (FCIS), Office of the Comptroller of the Army. Estimates were provided in April 1982.

b/ Source: Army Modernization Information Memorandum, Department of the Army.

MECHANIZED INFANTRY BATTALION (ANNUAL RECURRING O & S COSTS IN MILLIONS OF FISCAL YEAR 1983 DOLLARS)

	Army a/ M113	Army a/ FVS Low	FVS High	Comments on High Estimate
P_2M Repair Parts	0.765	1.93	3.5	Derived from AMIM Data b/
P_2B Repair Parts	0.210	0.212	0.212	FCIS Data
P_7M Repair Parts	0.356	1.24	1.64	Scaled Using Ratio at P_2M Between FVS and 113
Repair Parts and Fuel Subtotal	1.331	3.38	5.35	Subtotal
Other	6.933	7.75	7.75	FCIS Data; includes: MOS training, supply, medical and overhead
Spares (Procurement Funded)	1.259	3.41	8.0	Scaled using unit procurement costs of $136,768 for M113 and $1,017,972 for PVS (FY81 constant $)
MPA				FCIS Data for:
MPA	12.73	12.86	12.86	872 M113 BTN; 882 FVS BTN
Total	22.253	27.4	33.96	
Percent Change		23	53	

a/ The source of the Army cost estimate is the Force Cost Information System (FCIS), Office of the Comptroller of the Army. Estimates were provided in May, 1982.

b/ Source: Army Modernization Information Memorandum (AMIM), Department of the Army.

DEPARTMENT OF THE ARMY
OFFICE OF THE COMPTROLLER OF THE ARMY
WASHINGTON, D.C. 20310

12 August 1982

Honorable Ted Stevens
Chairman,
Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman,

The Army appreciates the opportunity to comment on the information provided the Committee by the Congressional Budget Office concerning Estimated Operating and Support Costs for battalions equipped with the M-1 Abrams Tank and the M-2 Bradley Fighting Vehicle. We are dedicated to insuring adequate, but not excessive, funding for support of these and other new weapons systems included in the Force Modernization Program that is so vital to the Army. We look forward to working with the Committee as the program progresses.

The patience of your committee staff in making this opportunity for comment available is sincerely appreciated. We respectfully request that the attached insert be placed in the appropriate location in the record of the 20 May hearing.

Sincerely,

Harold M. Davis Jr.
HAROLD M. DAVIS, JR.
Brigadier General, GS
Director of Army Budget

ARMY COMMENT

Army Comment: The Army is dedicated to providing adequate, and not excessive support for the Modernization Program. A major effort is underway to assure the accurate projection of operating and support (O&S) costs for the new weapons systems that are being fielded in conjunction with the program. The Army Modernization Information Memorandum (AMIM) represents an effort to put projections of O&S costs on a sound basis.

The issue of projected costs of battalions equipped with M1 tanks and Bradley Fighting Vehicles as addressed by Congressional Budget Office (CBO) is appreciated by the Army. Such an assessment by another agency is always helpful in refining cost estimates.

In this instance, apparently some differences exist between the methodology used by the CBO, and that used by the Army in the interpretation of AMIM data for estimating O&S costs for the M1 tank and fighting vehicle systems. These differences are that the CBO apparently:

a. Included in the Operations and Maintenance, Army (OMA) repair parts dollar amount the amount reflected in the AMIM for Procurement Appropriation funded repair parts. (Tank battalion, line P2M, Repair Parts, M1 High estimate.)

b. Used an inflation figure to raise the OMA repair parts amount to FY83 dollars, although the AMIM figure was given in FY83 dollars. This compounded the overstated amount described in paragraph a, above.

c. Computed cost of depot maintenance repair parts using a "scaling" method employing as one factor the overstated factor described in paragraph a and b above. (Tank battalion, line P7M, Repair Parts.)

d. Computed cost of Procurement Appropriation repair parts using another "scaling" method, although the cost of such parts had already been included in the OMA cost. (Tank battalion, line Spares, Procurement funded.)

The net result of these difference is a CBO estimate of annual operating and support costs for a battalion equipped with M1 tanks that is higher than the Army considers justifiable.

It is recognized that battalions equipped with M1 tanks will have increased operating and support costs when compared to battalions equipped with the M60's. The M1 is a more modern, versatile tank with increased combat effectiveness.

As more battalions are equipped with M1's, the Army will have a more completed base of experience data on which to project O&S costs. This will assist in the continuing effort to refine cost estimates.

LETTER FROM CONGRESSIONAL BUDGET OFFICE

August 16, 1982

Honorable Ted Stevens
Chairman
Subcommittee on Defense
Senate Appropriations Committee
Room 1225, Dirksen Senate Office Bldg.
Washington, DC 20510

Dear Mr. Chairman:

On May 20, 1982, in hearings before the Defense Subcommittee of the Senate Appropriations Committee, the Army testified that the recurring cost to operate and support a tank battalion equipped with M1 tanks would be approximately 18 percent higher than the cost to operate and support a battalion equipped with M60 tanks. Several months prior to that testimony, the Congressional Budget Office prepared estimates of the operating and support costs of the new tank and fighting vehicle system at the request of the House Appropriations Committee. The estimates suggested that costs go up more than 40 percent. Recently, the Army supplied your Subcommittee wtih criticisms of CBO's estimates. This letter responds to those criticisms.

In general, we believe that most of the criticisms offered by the Army regarding the methodology are not accurate. Therefore, we do not agree, as the Army suggests, that the methodology employed in this analysis unjustifiably overstates the estimates of the operating and support costs. Specific responses to the Army's criticisms follow:

a. As the Army noted, about $300,000 for repair parts funded out of the Procurement Appropriation were included in CBO's estimate of $5.389 million for Program 2 Mission Repair parts. CBO will correct this in future estimates. This $300,000, however, represents only 5.5 percent of the total estimate of costs for Program 2 Mission repair parts for a tank battalion, and only 1 percent of the total operating and support cost of a tank battalion.

b. The Army stated the CBO incorrectly inflated some costs. In order to state all costs in 1983 dollars, CBO inflated those repair parts costs that were not designated as fiscal year 1983 dollars in the Army's documents. Information provided to CBO by the Army specified that all costs (unless otherwise noted) were expressed in fiscal year 1982 dollars.

c. As the Army noted, CBO computed the cost of depot maintenance repair parts by scaling the ratio of costs of Program 2 Mission repair parts costs between the M1 and M60. This was done because comparable cost data for the M1 tank were not available from the Army. The cost factor representing M1 repair parts in the scaling, however, was not overstated, as the Army contended.

d. As this letter noted earlier, about $300,000 for repair parts funded out of the Procurement Appropriations were incorrectly included in the estimate for Operations and Maintenance. The rest of the procurement funded repair parts, amounting to $3.588 million for the M60A3 tank, are correctly handled by CBO in its estimates, contrary to the Army's comments. Specifically, the data provided by the Army to the Congress state that the estimate for Procurement funded repair parts is approximately $3.588 million (in fiscal year 1983 dollars) for a tank battalion equipped with M60A3 tanks. CBO used this estimate as a base and scaled the cost of procurement funded repair parts for the M1 tank battalion by the ratio of procurement costs between the M60A3 and the M1 tanks. (In fiscal year 1981 constant dollars, the procurement costs are estimated at $1.066 million for the M60A3 and $1.658 million for the M1 tank.)

We appreciate the opportunity to respond to the Army's comments.

With best wishes.

Sincerely,

Alice M. Rivlin
Director

MODERNIZATION COSTS

Senator **Stevens**. We have the definite feeling that while there is support for modernization of the Armed Services and the defense capability, that the general public does not realize the total impact of the increased operation and maintenance costs once the modernization program is over, that it would be a sustained, high budget—somewhere between, I think we could say conservatively 40 to 50 percent higher than the overall operation and maintenance budget of the Department of Defense now.

Are you doing anything to reduce through modernization. Will there be any cost efficiencies as a result of modernization?

General **Sheridan**. Sir, I know we are working at it. I would like not to give you an answer off the top of my head. I would like to submit something for the record, if I might.

[The information follows:]

Force Modernization

The Army's Modernization program is intended to provide the soldier with high quality equipment capable of meeting the Soviet threat. While improved performance is a critical characteristic of new materiel, inherent in this modernization is an intensive program to reduce life cycle cost by utilizing advanced technology and materials to:

(1) Reduce maintenance requirements by increasing durabilty.
(2) Simplify maintenance procedures.
(3) Reduce manpower requirements.
(4) Reduce fuel costs.

Examples of cost efficiencies achieved through modernization:

(1) *Patriot anti-aircraft missile system* (replacing Nike Hercules and some Improved Hawk batteries). The Patriot System reduces the number of trained operators and maintenance personnel required, reduces the number of spare parts required, and provides significant savings in the area of maintenance and support costs due to increased reliability (mean time between failure of system components).

(2) CH-47D Medium lift helicopter (modernized version, a follow-on to CH-47A thru C models). The CH-47D provides a significant increase in the operational mean time between failure in all categories with resultant savings in maintenance and repair parts.

(3) UH-60 Black Hawk helicopter (a follow-on to the UH-1 helicopter). In a Combat Support Aviation Company the UH-60 helicopter's increased lift capacity provides a reduction in Army pilot requirements by replacing the UH-1 helicopter on a 15 to 23 basis (35%).

(4) Small Portable Analysis and Diagnostic Equipment, (SPADE-New Item). This system reduces aircraft maintenance manhours by providing faster diagnosis and eliminating costly unnecessary parts replacement. It also contributes to increased aircraft availability.

(5) AH-64 Apache helicopter while not replacing the AH-1S Cobra, complements the Cobra and has a better mean time to repair (5.4 hrs as compared to 7.0 hrs). The Apache's modularization, high reliability components, and better accessibility of components contribute to increased efficiency.

MODERNIZATION VERSUS O&M COSTS

Senator **Stevens**. Well, just one last general question, General. That is, is any of this modernization designed to cut the cost of maintaining the antiquated equipment we have now? One of the reasons we are going to modernization, we thought originally that we would have a reduced cost of operation and maintenance.

Now, do you have any plans at all in this program, based upon an analysis of the cost of maintaining any of the equipment that you are replacing, showing that these programs will bring about a greater efficiency in the operation of your portion of the defense forces?

General **Sheridan**. Sir, it may be premature to try to answer that. We are, again, aware of your concern and we are as concerned as you are. Let me take the tank as an example. The analysis gives us the numbers that I gave you earlier. As that tank is fielded—both here in the States and in Europe—we are following it on a daily basis as to what it is costing, what the trends appear to be from an operation and maintenance standpoint.

Hopefully, as that system matures in the field we will confirm the data that we anticipate, the numbers that we have stated.

We are doing the same thing with other systems, the helicopter is a prime example. We will be following it in great detail. We anticipate what it is going to cost us to operate it and think we are right. Hopefully, as we learn more about it and get it into the field, we can bring some of those costs down. But to tell you today exactly what those numbers are and how much they are going to be reduced, I cannot do that.

General **Menetrey**. Sir, if I might just add to that.

Senator **Stevens**. Please.

General **Menetrey**. In the development of these systems the operating costs reduction is a big consideration. That is why the reliability and maintainability are measured.

The helicopter is an example. The AH-64 was designed for much-lower maintenance per flight hour and is proving to have that characteristic. Operating cost is considered in the development of each individual system.

Senator **Stevens**. I want to go into that further, but first I want to yield to Senator Rudman to see if he has any general questions.

Senator **Rudman**. Mr. Chairman, I have a number of specific questions on a number of these systems. I wonder if you would like me to defer until you get through some other questions.

Senator **Stevens**. Let me pursue this a little bit more then.

You are reducing some of the less essential acquisition programs, the Roland missile, and we have terminated SOTAS. Are there any other of these systems that you are not going to terminate as the other costs go up?

General **Menetrey**. Sir, we operate, as you know, within an obligation authority and we prioritize systems for procurement within the funds available. I cannot specifically think of any system that we are planning for termination due to cost growth.

REDUCTION OF M-1 PRODUCTION LINE

Senator **Stevens**. Well, let us take the M-1 tank production. It is my understanding that the Armed Services Committee has imposed budget cuts on that production line. Will those cuts increase the cost of production of the tank?

Staff tells me that you suggested that cut, that the Army suggested that cut in M-1 production. Will that increase the cost of producing those tanks, or will you be able to produce them still at $2.77 million a piece?

General **Sheridan**. Sir, let me see if I can set the record straight on the Army suggesting those cuts.

It is true, the Army provided the data for those cuts, but it was not an Army recommendation that those cuts be made. An overall series of cuts of total dollar value were given to the Army by the Defense Department in support of trying to get the President's budget down within a certain dollar value.

As we looked across that dollar value it appeared to us that we could reduce certain programs to meet that "bogie" if you will. We did that, and the tank, because of the magnitude of total dollars in the program, was one of the systems that we had to take dollars from. We had to look at big programs. We had to look at them on a priority basis.

Those programs and those dollars are still needed, as far as the Army is concerned. Even though we cracked the breastplate, if you will, on those systems we still feel very strongly that we need them.

Senator **Stevens**. General, I have not asked you that. I have asked you, will it increase the cost of the tank or will it not.

General **Pihl**. Sir, the Army's program is for 7,058 tanks and $19 billion. If you add back into the outyears the number of tanks that will be reduced as a result of the $200 million number that was given to us, the answer is, yes it would, presuming we still proceed on with our 7,058 program. We have estimated—and it is just an estimate—that it would take the program to the $22 billion level.

COST OF M-1 PER UNIT

Senator **Stevens**. Do you know the figure, General, what would that make it per unit for the tank if we do this?

General **Pihl**. Sir, at this point in time our estimate is $3.018 million, as compared to the current program unit cost of $2.77 million. That is the entire 7,058 program divided by the number of dollars.

Senator **Stevens**. What happens on the field artillery support vehicle? We have gotten an indication of a deletion of $106.4 million. What does that do with production startup as far as that vehicle is concerned?

General **Pihl**. Sir, that vehicle is a vehicle that replaces the M-548; it is a companion to the howitzer. That would essentially kill the program as far as the start is concerned, if that cut is sustained.

Senator **Stevens**. And what would you use in the place of that vehicle?

General **Pihl**. Sir, we would continue to use the M-548 vehicle in its unarmored condition. It has no cover. Perhaps General Menetrey would like to address that.

Senator **Stevens**. How old is that vehicle, General?

General **Menetrey**. I would have to get you the exact number. It is an older vehicle, in the range of 15 to 20 years. I cannot be exact.

General **Sheridan**. Twenty years.

Senator **Stevens**. Well, again, what we are looking for is to see whether you made the choices or someone else made them for you. Did you examine other systems to see whether the delay in those systems would be less expensive in outyears than delaying the M-1 and delaying this other field artillery ammunition support vehicle?

General **Mason**. The answer to that question is, yes, sir. All was looked at across the program in an effort to achieve a balance within the constraints.

Senator **Stevens**. It was in fact the Army's priority to delay those as opposed to other systems?

General **Menetrey**. Yes, sir, within the confines of the instructions; that is correct.

Senator **Stevens**. Well, I am trying to look in behind those confines and those instructions. Were you instructed to reduce the M-1?

General **Menetrey**. No, sir.

Senator **Stevens**. Were you instructed to reduce the ammunition support vehicle?

General **Menetrey**. No, sir, I do not believe so. I was not privy to all of the conversations that took place.

Senator **Stevens**. This is liable to put the M-1 in the position that the A-64 finds itself now, it gets up over $3 million a copy. I just want to make sure it is a conscious decision of the Army to delay that production line.

It was, it was your prioritization?

General **Menetrey**. Within the Army's overall prioritization, yes, sir.

Senator **Stevens**. Before I go to the A-64, do you want to ask your specific questions, Senator Rudman?

Senator **Rudman**. Thank you, Mr. Chairman.

VIPER PHASE II

I would just like the record today, since we are coming up on phase II testing of Viper which this subcommittee has been very interested in, to have a discussion with General Mason. I have talked to General Skibbie informally over the past 6 months.

General Mason, could you tell us whether or not the testing program appears to be running on time and whether you will be committing to these tests with the Marine Corps during the summer?

General **Mason**. Yes, sir, we believe the testing to be on time. I should add that General Skibbie is my boss. I went over everything that I am telling you today with him last night before I came over today. So, I know I am also speaking for him.

We believe it to be on time and we do not think we are going to have a problem accomplishing it, sir.

NORWEGIAN LAW SYSTEM

Senator **Rudman**. Can you tell the subcommittee, to what extent has any funding been furnished to any of the competitors? I am thinking particularly of the product improvement of the Norwegian LAW. Has funding been proposed for that system? The last I knew it was being discussed.

General **Mason**. Sir, no funding has been provided to any of the competitors, but the Army is holding the money and has been tasked to find the money to do that. Of course, we only have that one response. We have not gotten to the start of phase II yet, that will start next month and that is when the money should be provided.

I should also tell you that the Under Secretary of the Army has discussed with Dr. DeLauer the situation to which you are referring.

Senator **Rudman**. Would funds be supplied to other contractors who would apply for testing, or simply under the product improvement program to the Norwegian system?

General **Mason**. Sir, the current plan is that the funding would be provided to all of the contractors who passed through the first phase of the testing and got to the second phase.

ABERDEEN PROGRAM TESTS

Senator **Rudman**. And testing is presently scheduled for Aberdeen during the month of August?

General **Mason**. Yes, sir, but we do not anticipate that all of the contractors would have all of their weapons in Aberdeen for a test in August. We think it may be some in August, some in September, and so forth.

Senator **Rudman**. But in order to compete they would be required to have those systems tested, I believe, by sometime in the mid-fall; am I correct?

General **Mason**. Sir, it might even be as late as June of next year before we complete all of that testing.

Senator **Rudman**. In other words, what you are going to do is to keep it open to make sure that anyone who has a system which is about to come on line which will meet the weight requirement, the length requirement, and the penetrability requirement will have an opportunity to fire off against identical targets, identical armor at Aberdeen.

General **Mason**. That is our goal, yes, sir.

THE CHANGING THREAT

Senator **Rudman**. I think that is fine. In spite of some of the criticism that I have read, I think the Army has, in fact, a good faith approach to this test and I think it is worthwhile.

But I wonder—maybe General Sheridan might want to answer this question—in light of the latest DIA threat briefings that concern the balance of tank forces the Soviets are apt to deploy in the mid 1980's, and knowing that Viper is far behind schedule (which means that any light antiarmor weapon is behind schedule in terms of getting in the hands of the troops), whether or not simultaneously with this testing you are going back and looking at your specifications and your requirements to see whether or not you want to do any upgrading of those requirements before you make a final decision on which of these comparative weapons to select.

I guess what I am saying, General Sheridan, is that you have a far different threat in terms of balance, in terms of aggregate numbers, and in terms of the variety of Soviet tank forces that you might face.

Do you think maybe you should take a new look at your specs in terms of the light armor weapon that you will finally select and we, I hope, will fund?

General **Sherdian**. Sir, what you are suggesting is, that there are going to be ample targets for whatever weapon we carry. You are absolutely right. The threat has changed since the time we laid out the requirements for the Viper. We are continually looking at that requirement. We are continually looking at specs, to see if we should change them and examining the state of the art to determine what will allow in certain weight classes and systems.

At this point we are fairly well convinced that within the weight class of the Viper—the 10-to 14-pounds-and-less category—we may get a bit more penetration on one of these alternative systems, but we are probably going to have to take on that multitude of targets with whatever the system is—not from the front but from the side or the rear, and we are prepared to do that. But to answer your question specifically, yes, we are looking continually in the development process and the research process at what can we do and should we be changing to see if we can come up with better warheads in that same category. We are doing that. I cannot say this time where we are going warhead-wise, but I can provide it to you.

[The information follows:]

HIGH DENSITY DUCTILE METALS USE

The U.S. Army has been investigating the use of high density ductile metals formed in various geometric shapes to increase the performance of warheads. A significant improvement has been demonstrated [deleted] with one of these metals at a long standoff distance [deleted]. The VIPER standoff distance is only 3 charge diameters. Although this technology is still emerging, a series of tests of this new design scaled down to the VIPER size are being pursued. If these tests are satisfactory, additional work will be conducted that could lead to incorporating these warhead improvements in to the VIPER.

Senator **RUDMAN**. The reason I asked the question is because the original specifications were based on information that obviously was available to Army planners in the early 1970's.

General **SHERIDAN**. Correct.

Senator **RUDMAN**. We are now facing some real surprises. The briefing that we received indicated a much higher mix of the more sophisticated, later model Soviet tanks not only with the Soviet Army but with Warsaw pact forces planned for deployment at an earlier date than thought previously.

That, of course, makes it absolutely essential that whatever we deploy with our forces, to the extent possible, meet the threat.

AH-64

Which brings me to my next point. I am most concerned with antiarmor because I believe, General Sheridan—as I think the Army does—that if you are ever called to use all of the equipment that you have, the most important equipment you will have in dealing with a Soviet force is the antiarmor. Their entire doctrine is built around the use of massive artillery, combined infantry, and armor. They have had a rather successful experience with it.

I want to talk about the AH-64. No one is happy with the price of the AH-64. There are obviously some very real questions as to whether or not the full procurement of, I believe, 446 will be allowed and if it is, whether or not we can afford it.

Has any serious consideration been given to the AH-1S TOW Cobra, possibly improving that with some of the newer systems such as the Hellfire, whether or not that modification is possible?

Has anybody thought about the UH-60 Black Hawk; what can be done with that?

Essentially, what we are talking about in dealing with Soviet armor is some sort of highly mobile helicopter that can carry a very sophisticated, precision-guided munition.

I think we all can learn from the Sheffield experience that there are a lot of lessons to be learned and a lot of the wrong lessons can be learned. But the fact of the matter is that with the kind of missilery available today sometimes a fairly simple platform, getting it to the right place at the right time, can do an enormous amount of damage.

I am just wondering whether or not you are looking at other alternatives to carry your heavy antiarmor, other than the AH-64.

General **Sheridan**. Sir, I will give a brief answer and then I am going to defer to a couple of people here that may be able to answer a little more clearly. We have looked at other systems. We think at this point that the most cost-effective system to do the job is the AH-64. You mentioned the AH-1S, the Cobra. Certainly, the Cobra can be improved. We looked at that as we went through the decision process on the AH-64 to determine how much we could improve the Cobra and make it a competitor to the AH-64. We can do that. We can bring it up to a capability that is not comparable but comes close, if you will, to the AH-64. That improved version, however, is very limited in its carrying capability and would cost almost the same as the AH-64. We can provide details to you for the record.

Senator **Rudman**. I would like to see the cost comparisons.

General **Sheridan**. I will be happy to provide that to you, sir.

[The information follows:]

Cost Comparisons on AH-64

Any upgrade of the existing COBRA would require at least four years of RDTE at a cost of $300 million (escalated). That effort would result in an aircraft that would be less survivable, less crashworthy and less capable than the AH-64. The AH-64 has consistently proven in operational tests and extensive analysis that it is the most cost effective approach.

The best postulated AH-1S upgrade is assumed to have a Target Acquisition Designation Sight [TADS]/Pilot Night Vision System [PNVS], the T-701 engine, the HELLFIRE missile system, and other AH-64 mission essential equipment.

The following compares that aircraft which could not begin production for four years, with the AH-64 which is in production.

COMPARISON OF POSTULATED AH-1S UPGRADE AND AH-64 446 AIRCRAFT

[Escalated dollars—averaged over years of performance]

	AH-1S upgrade	AH-64
Estimated unit flyaway costs (Escalated dollars)	8.5	9.5
Procurement unit cost	11.14	12.60
Flyaway cost plus:		
Alternate mission equipment		
Ground support equipment		
Training		
Data		
Production support		
Spares		

The AH-64 was designed to fight and survive against 12.7 and 23mm weapons, to be very agile and maneuverable during hot day high altitude battlefield conditions while carrying 16 HELLFIRE missiles, to be self-deployable and to have less maintenance requirements than today's aircraft. The AH-1S or any upgrade, simply cannot compete with the capabilities of the AH-64.

BLACK HAWK

You mentioned the Black Hawk. There was some interest several years ago in the Black Hawk as a weapons platform. I might add that this week we are firing three HELLFIRES off the Black Hawk, as directed by the Congress. That does not mean that the Black Hawk is prepared and ready to carry HELLFIRES but we are demonstrating the feasibility of being able to do that.

To answer the question more specifically, yes, we have looked at other platforms but we still come back to our analysis that says that the AH-64 is, for the dollars spent and combat capability, the most cost-effective system that we can put out in the field. I would like to now defer to either General Pihl or to General Menetrey for amplification of that answer.

RETROFITTING CURRENT INVENTORY

Senator RUDMAN. Before General Pihl responds, I expect that is probably true in terms of acquiring essentially new equipment, and making additional purchases of these items. But I think my question was directed more toward the possibility of retrofitting the substantial inventory that we have of these attack helicopters, the Black Hawks and the Cobras.

What is the possibility of retrofitting some of these systems with some of the new missilery, particularly with the laser designation processes we have, and essentially leap-frogging way ahead of your own schedule with money to convert some of these to give us more heavy anti-armor?

Because frankly, General Sheridan, from all the doctrine that I read that you folks put out and the doctrine the Soviets put out I am not too sure in the next war—if there is one—that the infantry soldier is going to have much opportunity to use Viper, Armbrust, or anything else.

I think you are going to depend an awful lot more on your helicopter-launched missiles. I just wonder, what can we do with our current stock of helicopters to put these new "smart" missiles on them? Is anybody looking at that because that is the kind of investment that might be very worthwhile.

General MENETREY. Well, as you know, sir, we are improving Cobra. We have a total of five different models in various stages of improvement. Whatever can be reasonably done to the Cobra is being done to improve it. To the extent it has the capability General Sheridan mentioned, or even approaches the capability of the AH-64, would make it just about as costly as the AH-64. It could never be improved to that extent because of the basic limitations of the airframe. We do not intend, needless to say, to throw any Cobras away because even with the mixed fleet we are still short of armed or attack helicopters. There is no intent to do away with any operational Cobras at this time but to continue their upgrading.

The missilery will continue to be upgraded, but you have a weight limitation with the Cobra, depending of course on the altitude density.

You cannot hang as many or take the Hellfire Missile or the advanced missiles on the Cobra because of weight limitations.

Senator **Rudman**. On one Cobra, but you would obviously have a lot of Cobras compared to what the buy is on the A-64 presently.

General **Menetrey**. But the basic armament of the Cobra is the TOW Missile, and that missile is also being improved, as you probably know.

Senator **Rudman**. Yes, I do. Mr. Chairman, I just have one more question in the armor area, if I may.

Senator **Stevens**. Go ahead.

M-1 TANK PROGRAM

Senator **Rudman**. I want to talk briefly about the M-1 tank program. I am a supporter of the M-1 tank program. I think it has received a bad rap from many people based on the initial tests of that equipment which obviously had a lot of problems. Most automobiles produced in this country have a lot of problems, the first few thousand, if you look at the number of recalls.

I was in Germany two weekends ago, and looked at them in the field. I talked to people who operated them. I went with the chairman down to Fort Hood last year, they made substantial improvements.

The only problem is, it costs too much. As was pointed out to me in Germany, the German Leopard cost nearly as much as the new Russian tank. We do not know how much it cost but we assume that if you had equivalent labor rates it probably costs as much.

But we have a problem in how many we are going to buy. The buy is supposed to be 7,000 of these. My question, which I keep coming back to and which no one has given me a satisfactory answer to is simply this: Why do we not expedite our M60A3 conversion because the M60A3 fire control system is for all intents and purposes equivalent to the M-1? Obviously, as a moving gun platform it is not as good, but we all know that in many tank encounters tanks are fired from a stationary position.

That is about a $300,000 or $400,000 conversion, ending up with the same gun, same fire control system, equivalent range; less mobility and less speed. But still, a very, very lethal weapon.

Why do we not start accelerating that program, knowing that we have some real money problems in buying as many M-1's on schedule as we might like to? I wonder if somebody could tell me that here this morning.

General **Pihl**. Yes, sir, thank you, I would.

First of all, we have to talk about our capacity to do our simultaneous fielding of both the high and the low end of our tank force. We have the capability to build M-1's at Lima and now Detroit. We have the capability to convert M60A1's to A3's at the Mainz Depot in Germany and at Anniston Depot in Alabama.

The difference is, we are trying to improve our total tank fleet based on our capacity to do so. Given that we cannot build M-1's in Anniston and Mainz, it is this mix of modernization that I think is very important, to get the most modern tanks we can, given our industrial capacity to do so.

M60 CONVERSION

Senator **Rudman**. What is the present plan this year for conversion of M60 to M60A3?

General **Pihl**. Sir, we are going to spend $162.9 million to do that for 453 conversions, at a rate of 30 a month.

Senator **Rudman**. And what is the total force right now, approximately, of M60's, unconverted, in the fleet?

General **Pihl**. Sir, I would like to submit that for the record. I will have to check my figure on that, if I may.

Senator **Rudman**. I believe it is up above 8,000; am I correct?

General **Pihl**. I was going to say five, sir, but I would like to check. It is in that order of magnitude.

Senator **Rudman**. Mr. Chairman, thank you very much.

I just want to say to you, General Sheridan and to all of you involved with armor, that this subcommittee has had a real preoccupation for the past year in this whole subject. If you really want to come back to the reason for that preoccupation, I would recommend that you read a summary of the tank battle at Chochiwon, Korea, on July 11, 1950, when a battalion of the 24th Infantry encountered a North Korean infantry division, reinforced by Soviet tanks.

They were carrying the 2.36 rocket launcher, which in my opinion is probably about as good against what they were facing as the present Viper would be against what current troops might face.

What I have here—just as a coincidence this morning because someone happened to give it to me—it a casualty list of that battalion. We had American troops who were willing to fight, who fired 2.36. Out of 125 enlisted men in the platoon, 100 were killed; the officers were killed; the battalion commander was killed. Everybody was killed because they had an absolutely inadequate antiarmor weapon because this Congress right after the war cut back on everything and we were fighting with antiquated equipment.

I do not think we ought to be in a position, with all the money we spend on defense, on having anything but the finest antiarmor equipment available. When I look at the whole evolution of the procurement of some of this, I really wonder what people were thinking about. I certainly hope that we will have achieved something of value when your testing program is completed this summer.

That is the only objective of the subcommittee, to make sure that the best equipment can be purchased. I hope that you will all keep that in mind.

General **Sheridan**. Senator Rudman, we all at this table and on the Army staff share your concern, and we certainly do not want a repeat of what you just described in Korea. We are concerned that we do put the best piece of equipment, the most effective piece of equipment, in the hands of our soldiers because the most important resource we have on the battlefield is the American soldier. We share your concern, sir.

Senator **Rudman**. Thank you, Mr. Chairman.

Senator **Stevens**. Let me go back to the helicopter. You said you signed a contract in April, did you, General Pihl?

IMPACT OF FUNDING FREEZE

General **Pihl**. Yes, sir, that is correct, on April 15.

Senator **Stevens**. The Armed Services Committee bill would put a 1-year freeze on the 1982 funding. Now, what would be the impact of that on your contract?

General **Pihl**. Sir, at this time we have had dialog with the Senate, specifically with Senator Tower, before we put that contract out. The position on the authorizing side of the Senate was that we should limit our liability, and we have done so, through July 15.

Our position, of course, would be if we lost the 1983 contract that we would have a break in that production. I think although the language, as I understand it, says we would have a delay in the program, the facts are, I believe, that we would lose our production team that has teamed up to produce this machine.

So, we feel very strongly that we must get the 1983 production back.

Senator **Stevens**. What is the current cost estimate now on the AH-64?

General **Pihl**. Sir, the program unit cost for the AH-64 would be $16.2 million per copy.

Senator **Stevens**. We thought that had come down somewhat as a result of recent negotiations: is that not so?

General **Pihl**. Sir, I think so. Of course, I just gave you the total program for 446 helicopters divided by the money, that is a $7.3 billion program for 446 helicopters and the 9 prototypes.

Senator **Stevens**. I am concerned about this delay and I am not sure that it may not be too late to deal with that fencing as far as the authorization bill. But I guess since they amended our bill we can try to amend theirs if we are going to get into this.

But the impact of delaying the tank and at the same time delaying the antitank helicopter disturbs me, as far as our defense structure is concerned. I think if you are going to delay the tank that the Army should have made the decision to accelerate the acquisition of the AH-64.

Have you explored that?

General **Pihl**. Yes, sir, we have. In terms of going back to the original program that we had to rescope during the systems acquisition review cycle between the ASARC and the DSARC, we have explored the dollars that would be required to go back to the 536 level of effort.

At this time, given our TOA, though, it is currently not affordable.

Senator **Stevens**. We were told that the $16.2 million estimate is supposed to have come down to $15.1 million as a result of changes.

General **Pihl**. Yes, sir.

Senator **Stevens**. Now, do you anticipate a 1-year or 2-year delay as a result of what the Armed Services Committee has recommended, on the AH-64?

General **Pihl**. Sir, I believe that would end up being a net 2-year delay in the program as a result of the 1983 cut.

And your $15.1 million number is correct. We put risk money into the contract, sir, about $528 million. It is our anticipation that while that risk was put in on a dialog between the controller's side of the Army house, versus us on weapons development, we believe that we will buy more aircraft if that money is allowed to stay against this program, and we look forward to reducing the cost down to $15.1 million. That is an accurate number.

FIXED WING ALTERNATIVES

Senator **Stevens**. Have you looked at the possibility of using fixed-wing for a night anti-tank capability rather than helicopters, and what that change would do from the point of view of cost?

General **Menetrey**. Sir, as you know, the Air Force has designed the A–10 for the role as a fixed-wing tank killer, among other things. There is no Army program for a fixed-wing anti-tank aircraft, to my knowledge.

Senator **Stevens**. Have you ever rated the A–10 for that purpose, working in close support with the Air Force?

General **Menetrey**. Have we ever what, sir?

Senator **Stevens**. Have you evaluated the A–10's performance for night antitank activity?

General **Menetrey**. Yes, sir. We and the Air Force have, both singly and in combination. There have been many joint exercises and I think three joint tests. In fact, on exercises where air space allows, it is a combined team—that is the airborne team—on the antitank system.

I am sorry, did you say nighttime, sir?

Senator **Stevens**. Yes.

A–10 NIGHTTIME LIMITATIONS

General **Menetrey**. Oh. The limitations on the current version of the A–10 at night preclude us from really operating at night with the system.

Senator **Stevens**. We are told they are going to use Lantirn for A–10's for night antitank capability.

General **Menetrey**. Yes, sir. There are programs to upgrade the A–10 currently.

FUNDING FOR THE AH–64

Senator **Stevens**. Well, let me get to the $64 million question, or billion dollar question these days, I guess.

Is the Army willing to defer any other system in order to restore the AH–64 to its procurement schedule as recommended by the contract you signed in April?

General **Sheridan**. Sir, I am going to pass that one to General Menetrey. [Laughter.]

I think the answer is, no. But I am going to let General Menetrey take it.

Senator **Stevens**. You know, I am about as welcome here as an illegitimate offspring at a family reunion. You know, someone has to ask these questions. I just do not see that there is the balance in this adjustment that there ought to be.

General **SHERIDAN**. Sir, it is a good question.

Senator **STEVENS**. I just do not see how you can defer the tank and the antitank weapon at the same time. If you are not going to field the tanks in time and the Russians move with their tanks, what is going to stop them unless it is an antitank weapon that has night capability?

It makes no sense to do both. But the Army recommended the one, deferring the tank. Now the Armed Services Committee has recommended deferring the AH-64. I just do not understand.

General **MENETREY**. No, sir, and I agree with you, it is difficult to understand. I believe the Army's position would be to stay with the priorities that are reflected in our budget request.

Senator **STEVENS**. You would stay with the priority you set in the budget request which was, you did defer the tanks.

General **MENETREY**. To fund the AH-64, as we have indicated.

Senator **STEVENS**. Fund the AH-64 but to defer the tank.

General **MENETREY**. We would prefer not to defer the tank, also, but relative scale——

Senator **STEVENS**. But on a priority basis you did, as compared to the AH-64.

General **MENETREY**. Well, as compared to the total procurement program, sir.

Senator **STEVENS**. But the AH-64 was one of those items you reviewed at that time; was it not?

General **MENETREY**. Yes, sir.

Senator **STEVENS**. And you did not elect to defer that, you did elect to defer a portion of the tank production.

General **MENETREY**. Yes, sir, that is correct.

Senator **STEVENS**. We have to go vote, gentlemen. We stand in recess. We will be back as quickly as we can.

[Whereupon, a recess was taken.]

HELLFIRE MISSILE

Senator **STEVENS**. Gentlemen, if we can resume. We have about 15 to 25 minutes at the most because of another vote and then, right after that, another vote.

Let me go to the Hellfire missile problem. Do you think you can move into full-scale production with that missile with the money, the $249.2 million that you have in this budget?

General **PIHL**. Yes, sir, it is 267.5 million. That should provide for us 3,971 missiles and 338 launchers.

Senator **STEVENS**. Are you satisfied that is the missile you need for the AH-64?

General **PIHL**. Yes, sir, we are.

Senator **STEVENS**. Now, with the fencing of the 64 as recommended by the Armed Services Committee, does that also fence the missile?

General **PIHL**. No, sir, it would not. We will continue our production of the missile. In terms of your earlier question about what we are doing to control our costs, we are looking forward to competing the missile again next year.

It is our goal to have both Rockwell International and Martin fullup producers in 1984 of the Hellfire missile system.

Senator STEVENS. Well, what are you going to do if you do not have a platform to launch it from?

General PIHL. Sir, we just need to get that platfom to launch them from. We have to have that helicopter, in my view. We will continue the Hellfire program, I think, to show our resolve that the AH-64 is absolutely essential to the Army.

Senator STEVENS. Well, I understand that, but according to the Armed Services recommendation it is going to be delayed at least 2 years. We have agreed on that.

Now, why can't you delay the Hellfire, too?

General PIHL. Sir, Hellfire and its 7-inch missile capability, and what it does for us on the battlefield, gives us capabilities where we can launch it from other platforms. We prefer not to do that.

Senator STEVENS. I understood that it had to be helicopter launched.

General PIHL. Sir, there are other ways in which you could launch the Hellfire if you had to. They are not the preferred options in this case, it is ground-launch capable.

We have only explored that very briefly because this is a system that is integrated into the helicopter. The all weather capability and the ability to move on the battlefield is the most important part of bringing the Hellfire in with the AH-64, giving the commander the capability of moving this system to hit a mass of enemy tanks. Other options to use the Hellfire do not employ that mobility.

MODIFICATION TO THE AH-64

Senator STEVENS. Now, you have $33.7 million here fo R&D for the advanced attack helicopter. You did not have that item in your budget last year. But you have transferred from procurement to R&D funds to complete the AH-64 development testing.

Is that $33.7 million really to replace funds? I do not quite understand that $33.7 million. Can you explain it to me?

General PIHL. Yes, sir. The $33.7 million is to qualify a composite main rotor blade using the new composite material to take advantage of the latest state of the art, and to work on test program sets, automatic test equipment, for the helicopter.

Senator STEVENS. Is this not what happened to the tank, after we got it in production we started modifying it? Is that what you are going to do to the helicopter, you are going to modify it? As soon as we get into production you are going to change the rotor?

General PIHL. Sir, in this case it is a modification we believe is essential to the helicopter. It is not a modification in terms of going back to fix something we did not think of in the first place.

We have the composite main rotor blade available now through this R&D program, to be installed on the helicopter. We in all of our systems have preplanned product improvements at the time the system is fielded. In this case the remaining research and development for the AH-64 is to bring one of those preplanned product improvements on.

Senator STEVENS. Do you need that program if the AH-64 is delayed, as recommended by the Armed Services Committee?

General PIHL. Yes, sir, I believe because delay means that we are not killing the attack helicopter and we would eventualy put the composite rotor blade on. So, we would try to keep the R&D program alive, yes.

AH-64 MISSION SIMULATOR

Senator STEVENS. What about the AH-64 Mission Simulator, what is its cost?

General PIHL. Sir, I will have to provide that for the record.

[The information follows:]

AH-64 MISSION SIMULATOR COST

The AH-64 combat mission simulator is in the final stage of a competitive selection process, during which, the contract bidders will submit their best and final offer. The Army expects to complete the source selection process by August and will then have a contract cost. The Army's baseline cost esimate, however, is $49.0 million for research and development, testing, support and fielding of the prototype device to Fort Rucker.

Senator STEVENS. Can it be delayed if the helicopter is delayed?

General PIHL. In that we will get 11 helicopters out of the 1982 program and we will start training pilots. The answer to that is, I believe it will not be delayable, sir.

Senator STEVENS. How can you get it out of the 1982 program if the funds are fenced by the Armed Services Committee? Do you have some understanding with them that the language does not mean what it says?

General PIHL. Sir, from the exchange of letters between Mr. Ambrose and Senator Tower it was our understanding that as long as we limited our liability and were able to comply with that spirit of the language in those letters, that we could proceed with our 1982 contract, and have.

Senator STEVENS. How are you going to pay for it? The language is very clear, it says you cannot use the 1982 money.

General PIHL. Sir, we are already on contract with the 1982 money for the 11-helicopter program. That contract was signed on April 15.

Senator STEVENS. Is that contingent upon appropriation?

General PIHL. Sir, as I recall that was both appropriated and authorized for 1982, and it was only the language that was contingent upon the 1983 mark that caused the exchange of letters between the chairman of the Senate Armed Services Committee and the Under Secretary of the Army.

In a response back to him on April 15 we, the Army, did decide to go on contract with the attack helicopter.

Senator STEVENS. I was under the impression that the defense bill we passed froze the 1982 funding completely. What you are telling me now is, you have an understanding that it freezes it subject to the moneys that were already committed.

How much did you commit out of the 1982 moneys?

General PIHL. Sir, we put together the full program in 1982.

Senator STEVENS. Well, your contract covered all the moneys you had appropated, did it not?

General **Pihl**. Yes, sir, that is correct—with the exception of limiting our liability through July 15.

Senator **Stevens**. This report from the Armed Services Committee says that:

> "This is a net reduction of $803.8 million. It is the committee's intent that none of the unobligated $444.4 million authorized in the 1982 Defense Authorization bill for the procurement of the helicopter shall be used for the production of AH-64 until expressly authorized by a future act of Congress.

Now, is that right that you have an unobligated $444.4 million?

General **Pihl**. Sir, the 1982 dollars were $544 million in procurement and $91.9 in R&D for 11 helicopters. I cannot comment on your cite on how much is unobligated. I can certainly provide that.

Senator **Stevens**. We want you to give us a statement as to how you interpret that and how it impacts the 1982 moneys that this committee recommended and we appropriated last year.

General **Pihl**. Yes, sir.

[The information follows:]

FISCAL 1982 PRODUCTION CONTRACTS

On 15 and 30 April 1982, the government signed fiscal year 1982 production contracts after consulting with the Congress. Signing the contracts was the most prudent action and preserved negotiated prices and prevented increases which would have resulted from any delay and subsequent renegotiation. All these production contracts include a termination liability clause which limits the government's liability until July 15, 1982. In recognition of the Senate Armed Services Committee and Senator Tower's letter of Arpil 14, 1982, this termination liability clause was inserted to limit government liability pending the outcome of the joint authorization conference.

IMPACT OF FUNDING FREEZE ON THE AH-64

Senator **Stevens**. We want to know specifically whether you feel that that Armed Services Committee action—a Senate action—will impact your production, your actual production in 1982, and whether there is anything in the Senate-passed bill that mandates the use of the cancellation clause in your contract.

You do have a cancellation clause, do you not?

General **Pihl**. Yes, sir, and we have limited our liability, our termination liabiity, through July 15 at this time, subject to what comes out of joint conference.

Senator **Stevens**. I do not agree with the action, and we may attempt to alter it. If the tanks are delayed I do not think the helicopters should be delayed. But we need to know what you really think that impact of the Senate's action is on the AH-64 program.

General **Pihl**. Sir, we completed our negotiations for that 1982 contract on April 10. The Under Secretary of the Army in a letter to Senator Tower on April 13 told him of the Army's intent to let the 1982 contract. On April 14, Senator tower answered us and asked us to limit our liability if indeed we intended to proceed with contract. On April 15, we did. I certainly will provide an impact of the 1982-83 AH-64 contract for the record.

Senator **Stevens**. I have a series of questions on the M-1, but since we have already dealt with that I will submit the technical questions and appreciate your prompt response to those questions concerning the M-1 and its total impact on the budget. And the Bradley Fighting Vehicles is in the same circumstances.

General **Sheridan**. Mr. chairman?

Senator **Stevens**. Yes, sir.

M60 CONVERSIONS

General **Sheridan**. May I answer one of your previous questions on the M60A3 tank production and how many we had, and how many we have to go.

At the end of fiscal year 1983 we will have converted roughly 1,064 A-3's, we will still have a total of about 4,500 to go, with new production of A-3's we will have a total of about 7,300 A-3 tanks. We can give you those numbers exactly, if you would like them, for the record.

HAWK MISSILE PROGRAM

Senator **Stevens**. What about the Hawk missile program? We had OSD testimony that all of the guided missile systems are above the goals for those systems, missions for those systems, except the Hawk. What is wrong with the Hawk, if there is something wrong, and what are you doing about it?

General **Pihl**. Sir, we have a series of improvement programs for the Hawk missile system. We are currently in our block No. 3 improvements. It is the Army's intention to retain a mix of Hawks and Patriots when they come into the inventory.

We are taking a look at Hawk and trying to keep it as current as we can, given the threat.

Senator **Stevens**. What are you going to do with the Patriot, where is it going?

General **Pihl**. Sir, the Patriot will be in NATO, Europe, as far as the central battle is concerned. It will deploy to Europe.

Senator **Stevens**. Are any of them going to be deployed in the United States?

General **Pihl**. There will be a training and rotation base of 3½ battalions for Patriot in the United States, yes, sir.

Senator **Stevens**. But it is basically an overseas deployment system.

General **Pihl**. Correct.

Senator **Stevens**. All right, let us go on. Do you have any more questions about procurement before we get to R&D, Senator Rudman?

BATTLEFIELD DATA SYSTEM

Senator **Rudman**. I only had one question, Mr. Chairman, if I might just ask it briefly.

I wonder if one of you could tell the subcommittee the difference between the SOTAS system which was zeroed out last year, and the battlefield data system which is now being proposed.

General **Mason**. Yes, sir, I think I would like to try that one.

In the SOTAS system that we had last year—it was an Army-only system and we used essentially one system for the corps commander and one system for the division commander.

For the division we were talking about putting the system on the Black Hawk helicopter.

The new program we are discussing, sir, that we call battlefield data system will go on an OV-1-D aircraft, a fixed-wing aircraft that we currently have in the inventory of the Army.

We and the Air Force—it will be a joint program—will take the pave mover program and the battlefield data system—or the old SOTAS, if I may use that term—put them together. That will be one common radar to satisfy both the Air Force's requirement and the Army's requirement. That radar will have the following capabilities in order of priority.

First, a moving-target indicator capability. That is the Army's No. 1 priority.

The No. 2 capability, it will be able to provide fixed-target indicator kinds of data. We call that SAR data—synthetic aperture radar data.

The third capability will be to be able to provide weapons inflight guidance.

We will have a joint program, OSD has blessed that, and that is essentially the difference. I believe you will see a significant cost savings in the battlefield data system program versus SOTAS, sir.

Senator RUDMAN. Does this system utilize more of the off-the-shelf technology than the previous SOTAS system?

General MASON. It has not been decided exactly what that radar will be, sir. In the study group that OSD formed we looked at all of the radars that were available in the United States or anywhere that we knew about, that had that capability.

There are five radars that I know about that are competitors to it. All of them are either operating today or, let me say, more than 75-percent complete in their technology.

Senator RUDMAN. How about the microprocessors and the other data processing and handling equipment, will there be an effort made to use products that exist rather than going back to block 1 to develop one?

General MASON. Sir, because of the IOC it will be essential that we use products that currently exist.

Senator RUDMAN. I expect that is the reason that the costs are going to be considerably lower than the SOTAS.

General MASON. Yes, sir, that is part of it. The other part of it is, in the SOTAS System we were using a Black Hawk helicopter which was expensive, that was part of it, sir.

The other side of it is, of course, that we do have a common program with the Air Force. We will be buying in greater quantities between the two services.

Senator RUDMAN. Thank you.

RATTLER—REDUCTION IN R&D FUNDING

Senator STEVENS. I have a series of questions on research and development reductions. If I do not get through them, we will submit them all to you.

Rattler was on the list of reductions, and I am talking now about the list that the Army submitted, or the Department of Defense submitted, to the Senate Armed Services Committee. There was a reduction of $12.9 million in Rattler.

Now, this is an antiarmor weapon designed to replace Dragon. Why was that put on that? Of all things right now, I think, as Senator Rudman was saying, the antiarmor weapons ought to be the highest priority we have. Why have we agreed to reduce that Rattler schedule? Did the Army agree with that?

General Menetrey. Sir, we believe we need the Rattler program for a variety of reasons.

Senator Stevens. Let me make sure we all understand each other about the ground rules of this committee. As I understand, you must stand by the administration's requests. I know that.

As I understand it, even the administration has agreed that we have have the right to ask you whether you agree with that and whether it was your priority or a priority established by the administration. Now, that is what I am trying to find out.

I really cannot understand it, if the Rattler had the potential we thought it had, why that is on this list of reductions, as compared to other R&D.

Was it your priority, an Army priority consideration that led to that being on that list? Assuming you had to have some reductions—we understand that—was that your priority or was it the priority of DOD, or OMB, or where did it come from?

General Menetrey. If I recall, we agreed with that priority in terms of cutting. Now, a lot goes into that, Mr. Chairman.

HIGH-SCHEDULE COST RISK

Senator Stevens. I understand that. You submitted a high-cost schedule risk program to DOD, and Rattler was on that. Why was that?

General Menetrey. The high risk?

Senator Stevens. Yes. The high-cost schedule risk lists, as I understand it, was presented to the DOD and Rattler was on it. You have $5 million left out of the original request.

General Menetrey. Yes, sir. I am not familiar with the terminology "high-cost schedule risk." But Rattler is in the stage of development, in RDT&E, where we are looking at competing technology to better solve the requirement.

Senator Stevens. We took that from the Army's descriptive summary which stated, "The program plan is recognized as having a high-schedule cost risk."

General Menetrey. Yes, sir.

Senator Stevens. I turned it around, high-schedule cost risk. That is what we are talking about.

General Menetrey. Depending on which of the competing technologies is selected, there would be a higher schedule risk, particularly in attempting to meet a given operational readiness date. I am sure that is how that terminology came about.

Senator Stevens. Well, is there another antiarmor weapon that is competing with the Rattler that has a lower risk as far as the program is concerned?

General Menetrey. There is no antiarmor system in that category that is competing. The Rattler is a generic name for the medium antitank system. There are competing technologies to meet that, some of which, are more mature than others. I could comment on that, but I am not sure when I get beyond the open hearing format.

Senator Stevens. I am not either in this area.

General Pihl. I can talk to the types of technologies in the unclassified area.

We have laser beam rider as a candidate; we have a focal plane array; we have smart target acquisition fire and forget, which is a lookdown top attack; and we have two color IR as candidate technologies within the Rattler medium-range antitank missile.

This program at the $5 million level would still allow us to explore those technologies as far as coming up with a demonstration of how to put this technology into a medium-range missile.

Senator Stevens. The Rattler is not one system, it is an analysis of a series of systems to see which ought to go forward?

General Pihl. Sir, I think the correct answer is, it is not yet a system. It is a generic program, as General Menetrey indicates and eventually, given competition between competing technologies, looking at a weapons acquisition process for this, it would eventually become a weapon system. At this time it is an R&D program.

Senator Stevens. Well, what is the real effect of this reduction in terms of delay? Again, we are looking at R&D and we literally have billions involved in that in the DOD. It seems if there is one place where we are light right now it is in the antiarmor area.

Why was this delayed, is what we are trying to ask. Is it going to be a serious delay as a result of this reduction?

General Pihl. Sir, we estimate it will be a delay of at least a year. Seriousness I can only evaluate in the loss of capability, and the answer to your question is, it was an affordability issue.

DRAGON

Senator Stevens. Is Dragon functioning now?

General Menetrey. Yes, sir, Dragon is functioning.

Senator Stevens. Is it effective?

General Menetrey. Yes, it is effective, but within the parameters that the Dragon was intended to operate.

Senator Stevens. Well, is it effective as opposed to the threat we now perceive, without getting into classified areas?

General Menetrey. It is not effective against all aspects of the threat we see.

ANTITACTICAL MISSILE PROGRAM

Senator Stevens. All right. Another one is the antitactical missile program, a $7.6 million cut. A program delay for 1 year.

Now, what is that phased into, what was it dealing with?

General Pihl. Sir, this is a reduction to the Army program, we are the executive agent for the Defense Department for the antitactical missile program. We have looked at a range of ways in which to defend against the Soviet RV threat and the Soviet air threat. That is why it is called "antitactical missile" and not "antitactical ballistic missile."

In order to put together a program where [deleted] as well as [deleted]—we put together the antitactical missile program as led by the MICOM down at Huntsville, and are looking for a generic solution to the antitactical missile problem as well as a chance to expand [deleted].

This sort of a reduction, again, would slip our ability to field an antitactical missile capability.

Senator STEVENS. Is anyone else working on this besides the Army? Are you the designated agency for DOD in this area?

General PIHL. We are, sir. We have the lead for it. The Navy is working on it and we are working with the Navy on this program.

MOBILE PROTECTED GUN SYSTEM

Senator STEVENS. Now, the mobile protected gun system program was reduced by $27 million. How do you intend to use that reduction as far as the total program is concerned? Are you going to restructure the whole effort, or does it affect the timing of it?

General PIHL. Sir, that is the total amount for the Army's part of the joint program on the mobile protected gun system. This is our far-term vehicle that comes in as a part of a logical extension of the light armored vehicle program in the near term.

We are buying, or we hope to buy, a light armored vehicle for our light divisions and for the Marines' Rapid Deployment Force; in the 1988 to 1990 time frame field a mobile protected gun system that would be the next generation, if you will.

The $27 million is a very difficult situation for the Army in that the Marine Corps in 1982 has money in the mobile protected gun system, and our part of a joint program falls apart as a result of this potential reduction.

Senator STEVENS. How does the light-weight air defense gun, the LADS system, interface with the problem that Senator Rudman has discussed already? You have $3.5 million in here for a new R&D start on LADS.

I am told that is to replace the 20mm Vulcan air defense gun. Is that right?

General PIHL. Yes, sir.

General MENETREY. It replaces in the light divisions the towed Vulcan.

RAPIER SYSTEM

Senator STEVENS. How does it relate to Rapier?

General MENETREY. Sir?

Senator STEVENS. The Rapier system, how does that relate to that?

General MENETREY. Sir, we do not have a program for Rapier.

Senator STEVENS. I know that, but I thought we were evaluating Rapier.

General MENETREY. It has been evaluated in the past several times, I believe.

Senator STEVENS. And we have decided to build our own system rather than use the British system?

General MENETREY. Yes, sir. We have, as you know, the DIVAD System which is a twin 40-millimeter cannon air defense gun. One of the candidates we discussed earlier would be a derivative of that. We are seeking to have a light air defense system that is a derivative of one of our current systems instead of having still another air defense system in the inventory.

A missile, a Stinger derivative, and a 40-millimeter gun, both of which are coming into our inventory were evaluated for cost affordability reasons, among other things.

ROLAND ALTERNATIVE

Senator **Stevens**. Do you have an alternative to Roland? I understand you have terminated Roland procurement. Is there an alternative to Roland?

General **Menetrey**. The alternative is a mix of other systems, sir. You know, it goes with keeping improved Hawk in the inventory as part of it: improving Chaparral in the inventory is another part of it: and in the mix of systems we would replace Roland but not on a one-for-one basis with any one system.

Senator **Stevens**. What do you do for ground air defense right now, in NATO in particular?

General **Menetrey**. Ground air defense, sir, involves a whole suite of systems. The high altitude, the medium altitude, and the low altitude. The short-range air defense is forward deployed around main operating bases and air fields, I think what you are referring to is probably that short-range air defense, and that is provided——

Senator **Stevens**. Well, you perceived a gap after you had Roland. You had that gap that you perceived and you are going to put the Roland procurement in that gap now.

General **Menetrey**. Yes, sir.

Senator **Stevens**. You have abandoned that program. What is going to fill the gap now?

General **Menetrey**. We will keep Chaparral in there, improve it and replace it with a mix. We will also keep Hawk, which is really a very effective system, in that environment longer, replace site defense with a mix of systems—to include eventually some DIVAD system.

Senator **Stevens**. Senator, do you have any further questions?

Senator **Rudman**. No.

SUBMITTED QUESTIONS

Senator **Stevens**. We will submit the balance of questions, particularly about the JVX and others. We may have some additional questions to give to you concerning the prioritizing of these reductions in R&D and procurement.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

ADDITIONAL COMMITTEE QUESTIONS

Army Force Modernization

QUESTION: Aren't there other systems that could be delayed as well? Isn't that kind of approach preferable to cutting back on such items as the M-1?

ANSWER: The Field Artillery Ammunition Support Vehicle was selected since it was a new start program. This capability is still needed, and its delay will extend the risk to direct support field artillery units which now lack armored ammunition supply vehicles. No other new starts provide similar amounts of funding which could either offset reductions to the production of M-1 tanks or provide a trade for the support vehicle. While delaying new starts is considered before an existing program is reduced in scope, the Army places its final judgements on capability, timing, risk, resource requirement and priority within a balanced overall program. Analysis of individual system decisions often overlooks the synergism and interdependence of other elements in the total program.

OPERATION AND SUPPORT

QUESTION: It would appear that modernization procurement and support costs will rise dramatically by the second half of this decade. General Anson, do you foresee some point where procurement outlays become so high that support costs may have to be underfunded?

ANSWER: No. The Army is modernizing under a "total system" fielding methodology. The intent is to program fully for operation and support of every system we send to the field. Under that philosophy, we would ensure that our program is balanced between procurement and operation and support outlays, within the Army Total Obligational Authority.

Force Modernization

QUESTION: GAO has observed that acquisition costs always leap dramatically when a new system goes into production. Do you expect this trend to continue? Do your cost estimates allow for this cost increase phenomenon?

ANSWER: The Army has taken numerous steps to improve weapon system cost discipline throughout the development and acquisition cycle. For instance, in the area of system cost estimates, Army policy has been established which requires that baseline cost estimates of major systems be updated annually to insure that the best current cost estimates are available. Policy has also been established which requires that uncertainty ranges be included on all cost estimates to accommodate unknowns such as schedule slippage, weight growth, and test failures. Recent experience with the AAH and AHIP resulted in the cost analysis community analyzing the impact of risk including contractor capability, financial structure, management and facilities in order to obtain a better assessment of the uncertainty ranges associated with these systems. An evaluation of baseline cost estimate procedures is being accomplished with a view toward simplifying the overall methodology and process. A major initiative is being undertaken by the Commander of the Materiel Development and Readiness Command to control costs. This effort is known as the Program Management Control System. The essence of the system is to bring stability to programs by making changes and costs thereof highly visible and subject to senior management approval.

QUESTION: Can the Army expect to realize any offsetting cost reductions for procurement and operating support of existing weapons systems? If so, what are they and how extensive?

ANSWER: Compensating cost reductions for procurement of existing weapon systems will be realized. The cost reductions have already been incorporated by reducing or eliminating procurement of existing systems which the Army otherwise would have purchased or upgraded had no modernization taken place. An example is the reduction of M60 tank procurement as procurement of the M1 tank increases.

Offsetting cost reductions for operating support of existing weapons systems will also be realized, although not necessarily producing an equality. While the operating support costs of existing systems decline as the system is phased out and ultimately eliminated when the existing system is totally removed from the inventory, the operating support costs of the new systems may not exactly offset such cost reductions. For those new systems which do not replace existing systems, there are no offsetting procurement and operating support costs, such as Multiple Launch Rocket System.

It is not possible to determine how extensive the total offsetting cost reductions will be considering the magnitude of new systems being introduced and the span of time during which the modernization efforts will occur.

QUESTION: We have been furnished copies of a report by the Army's Cost Discipline Advisory Committee. The whole idea is to get a handle on costs as quickly as possible. Has that report resulted in any tangible benefits yet?

ANSWER: The Army is committed to implementing the recommendations of the Cost Discipline Advisory Committee and has established a target date of June 1982. Tangible benefits will occur primarily in the future as these initiatives have time to take effect. However, many actions are underway that have the potential of providing tangible benefits.

A system has been established that will require annual cost estimates of major systems so that the best estimate of costs will be available during budget preparation.

The Comptroller of the Army has conducted a study of the treatment of inflation in the Army. Emerging results of that study should provide for more consistent use of inflation in estimates.

The risk review team has been formed to help Army decision makers ensure the best cost estimates are used during the decision process. The risk team, an ad hoc team of experts, will visit program managers and contractors and evaluate the risks inherent in all phases of the system. They will also examine the baseline cost estimate and independent cost estimates and recommend the appropriate estimate to the decision makers.

The Army has often experienced cost growth as a system transitions from development to production. The materiel developer has conducted a study of the feasibility of programming risk money during procurement to help alleviate this problem. Testing of the concept is still underway.

The materiel developer has established a monthly program management control system which will enhance his management capability and assist in controlling costs.

QUESTION: The staff did not find anything really new in the Cost Discipline Committee's recommendations. What changes are being implemented as a result of that report?

ANSWER: The Cost Discipline Advisory Committee recommended a total of 62 initiatives. Some of those had been recommended by earlier study groups but not implemented. Army senior managers have decided to implement most of the recommendations with a target date of June 1982. Some examples are:

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AH-64 Attack Helicopter

QUESTION: One of the worst current examples of cost overrun is the AH-64 Attack Helicopter Program. Please bring us up to date on what has been achieved in reducing the cost of this aircraft.

ANSWER: After intensive should-cost analyses, fact-finding, and negotiations, the Government has signed contracts for the Fiscal Year 1982 production of 11 AH-64s. In those contracts, and in future contracts, a major cost driver is recurring labor costs. The negotiations resulted in positions for recurring labor costs, which when extrapolated over the life of the program, indicate that the entire program can be procured within the Program Manager's budget. That means that the previously added contingency risk funds of $528 million now will not be needed to procure the 446 aircraft. Those funds will be used instead to procure 40 to 50 additional aircraft. The net effect of reducing the funds required for the 446 aircraft by $528 million is to reduce the flyaway unit cost in escalated dollars from $10.6 million to $9.5 million. Future detailed analyses, fact-finding, and negotiations will continue to insure that the prime and subcontractors negotiate prices which are fair to the Government. Additionally, the Government will utilize component breakout and second-sourcing to further reduce the unit cost of the aircraft. Multiyear procurement beginning in Fiscal Year 1984 is also being considered.

QUESTION: What would be the cost impact of a 1-year delay in production of the AH-64? A 2-year delay?

ANSWER: Any delay in the AH-64 program causes increased costs and uncertainty as to the future of the program. Due to potential disruption of the established production team and the probable need to reselect and requalify subcontractors and vendors after a production break, it is difficult to estimate the cost of any delay.

The AH-64 is in production, and the production team is formed and is working to produce the first eleven aircraft. Engineers who designed the tools are on board and will be able to assist in the fabrication and prove-out of that tooling. If there is a gap in production, those engineers will certainly go to more attractive, stable jobs. That would require retraining of an entire cadre to restart the work at another time. The impact on suppliers, especially those of critical components such as blades and gears, would be great. If those suppliers should choose other stable businesses instead of the production of AH-64 components, re-creation of a supply base would be costly and time consuming. It would not make sense to resume the project until this consideration was resolved since critical components pace the entire production line.

Although it is difficult to quantify costs, aerospace inflation indices have historically exceeded the norm. The total cost of a delay would include retraining, requalification, rehire, and reestablishment of a production team, and could well exceed one billion dollars. A delay only worsens the problems of increasing weapons systems acquisition costs.

QUESTION: What tactical advantage are we giving up if we put off or abandon the AH-64?

ANSWER: Recently completed operational tests (OT II) and cost and operational effectiveness analyses have all shown that the AH-64 is the most cost-effective solution to an urgent need for a day/night adverse weather, highly mobile tank killer capable of employment anywhere in the world. The AH-64 has been designed specifically to help counter the numerically superior Warsaw Pact armored forces and will be the only attack helicopter capable of supporting the rapid deployment force in hot high areas such as Southwest Asia. Alternative aircraft to perform the AH-64 mission do not exist, and upgrading the current AH-1 aircraft would require at least four years of research and development effort, and would result in an aircraft which is less capable, less survivable, and costs approximately the same. If the AH-64 is abandoned, numerous technical and tactical advantages would be lost to the ground commander. Specifically:

o Night operations, independent of ambient light

o Adverse weather, true 24-hour capability

o Ability to defeat armor with indirect fire from concealed location up to [deleted] from the target

o Ability to defeat armor with direct fire up to [deleted] from the target

o Increased lethality--HELLFIRE antitank missiles defeat [deleted].

o Long range target acquisition and designation

o Inherent survivability, including redundant systems and crew protection

o Increased hot day performance--only antitank helicopter capable of effective operations in high-altitude, hot-day environment of Southwest Asia

o Increased ordnance load capability in Europe

o Increased agility and maneuverability for nap-of-the-earth operations

o Self-deployment capability

o Single engine capability

o Future weapons subsystems growth capability to meet an evolving threat

QUESTION: How does the AH-64 compare with the Soviet HIND-D helicopter, particularly in night and adverse weather capability?

ANSWER: The AH-64 has been designed as a fully capable day/night adverse weather anti-tank helicopter. (Deleted.) However, the continued Soviet resolve towards the utility of attack helicopters is evidenced by their growing inventory and production rate (deleted).

AAH/HIND COMPARISON
EUROPEAN DAY
2000 feet/70°F

CAPABILITY	AH-64	HIND E
Cruise Speed(knots)	151	160
VROC (FPM)	865	500
Mission Gross Weight (LBS)	17,330	22,491
Endurance (Hours)	2.5	Unknown
Ordnance	16 HELLFIRE	4 AT-6
		128 57mm rockets
	30mm(1200 rounds)	12.7mm (4000 rounds)
Missile Range	**[Deleted.]**	**[Deleted.]**
Missile Guidance	Laser Autonomous Laser Other Source	

HOT DAY
4000 feet/95°F

	AH-64	HIND E
Cruise Speed	145	155
VROC (FPM)	450	500
Mission Gross Weight (LBS)	16,550	19,845
Endurance (Hours)	1.83	Unknown
Ordnance	12 HELLFIRE 30mm(170 rounds)	4 AT-6 12.7 (1500 rounds)
Missile Range	**[Deleted.]**	**[Deleted.]**
Missile Guidance	Laser Autonomous Laser Other Source	

QUESTION: What would be the cost of converting the COBRA to carry HELLFIRE missiles and mast-mounted sight?

ANSWER: Converting the COBRA to carry HELLFIRE missiles and mast mounted sight would require an extensive research and development program to overcome several technical problems, and is regarded as medium to high risk. The existing COBRA cannot carry the added weight of the HELLFIRE missile and mast-mounted sight without extensive engine and transmission modifications, and must be upgraded with a four-bladed rotor system and a -701 engine. A mast-mounted sight with TV, Forward Looking Infrared, laser designator and tracker, would weigh approximately 290 pounds, and require 54 months to develop. Expected mast vibration levels must be reduced to meet sight stabilization requirements. A concurrent 18 month vibration damper development program would be required. The mast-mounted sight night designation range could be about the same as the AH-64 Target Acquisition Designation Sight (TADS), but due to reduced focal length, the daylight range would only be one-half the TADS range. This reduced daylight range would necessitate a change in tactics, and would reduce aircraft survivability. A COBRA with mast-mounted sight would be unable to designate at the full range of the HELLFIRE missile. Additionally, lack of a pilot night vision sensor severely inhibits the ability to navigate safely at night in a nap-of-the-earth environment.

Converting fully modernized AH-1S COBRA's to carry HELLFIRE and a mast-mounted sight would require $250 million for Research and Development and $2.5 million above the cost of each modernized AH-1.

A conversion program in lieu of the current APACHE production program, results in the Army remaining 446 attack helicopters short of its procurement objective. If the Army bought new AH-1S, and converted them, the result would be a much less capable aircraft at essentially the same cost.

QUESTION: Let's go back to costs of the AH-64. Aside from giving up its contingency reserve, how did the Army bring costs down on the AH-64 specifically? How much did the contractor give up?

ANSWER: Recent should-cost analyses, coupled with extensive fact-finding and negotiations, resulted in a better understanding of requirements and a fair price for the Government. Those negotiations revealed that the previously added contingency funding would not be necessary to procure 446 AH-64s. Significant savings were realized in all areas of the contract. Most significantly, in the air vehicles area, the Government was able to negotiate a reduction of over $33 million from the original proposal. Specific areas of reduction in the recurring air vehicle costs were reduced fixed price proposals from major and minor subcontractors and a reduction of manufacturing labor hours which now reflect values more in line with industry norms.

QUESTION: What is the current unit program cost on the AH-64 and how does that compare to the original development estimate?

ANSWER: The development estimate for the unit program acquisition costs was $3.44 million in constant 1972 dollars, and the current estimate is $5.39 million in constant 1972 dollars. The growth of the program has been due to revised estimating and program changes, such as the addition of the more lethal Hellfire missile system, a target acquisition designation sight and pilot night vision sensor, upgrading the engines to the -701 configuration, and increased spares and training requirements to reflect the Army's increased emphasis on readiness. Addition of the $528 million contingency/risk funding and a reduction in the planned procurement from 536 to 446 aircraft also contributed to the increase in unit program acquisition costs.

QUESTION: The latest systems acquisition review pegged AH-64 unit program cost at $16.2 million. How will this be affected by recent cost adjustments? That is, what is the current unit program cost?

ANSWER: Since contract negotiations have indicated that the $528 million added as a contingency reserve can be used to procure 40 to 50 additional aircraft, the program unit acquisition cost in escalated dollars for 446 aircraft can be reduced to $15.1 million. This program unit acquisition cost includes a pro rata share of the $1.2 billion RDTE funds already expended through FY 1982.

QUESTION: By dropping the so-called management reserve for the AH-64, are we ignoring the established pattern of sharp cost increases when new systems go into full production?

ANSWER: No. The Army has been totally candid in cost estimating on the AH-64 program. We have established a program which has made the AH-64 more ready for production than any previous aircraft system. At the onset of production, over 95 percent of production drawings had been finalized, and extensive effort had gone into producibility engineering and planning. As such, the majority of the historical increases in cost normally experienced after systems entered production have been identified and included in cost estimates.

QUESTION: How badly does the Army want the AH-64? Would you be willing to give up or defer other new weapons systems in favor of restoring the $1 billion budget request for Fiscal Year 1983?

ANSWER: The APACHE is one of the Army's top-priority programs, if not the top-priority program. Fiscal Year 1983 procurement budget request is $965 million for the 48 AH-64s and includes advanced procurement for the next year. That funding is a portion of the Army's total obligational authority. Currently the House Armed Services Committee supports continued production and acquisition of the AH-64 program, and differences with the Senate Armed Services Committee will be resolved in a joint authorization conference. Until resolution of the authorization committees' differences, the Army's position is that the budget submitted for Fiscal Year 1983 establishes the funding and priority levels for the programs the Army needs.

QUESTION: First, how do you plan to use the $49.8 million in the Army R&D budget for this program?

ANSWER: The planned expenditure for this Fiscal Year 1983 budget request is:

- Conceptual technology assessment completion	$ 0.5 million
- Development and maintenance of program management office	0.9 million
- Request for proposal preparation, execution and management	5.3 million
- Army Aviation Research and Development Command in-house support	1.8 million
- Engine development/modification contract	2.9 million
- Additional risk reduction flight test	3.4 million
- Initiate air vehicle development	35.0 million

This should include:

-- Initial Preliminary Design
-- Wind tunnel verification
-- Aeroelastic model verification
-- Flying qualities simulation (math models)
-- Shipboard compatibility demonstrations (engineer mockups)
-- Prototype manufacturing (long lead items)
-- Data, drawings, etc.
-- System test engineering and program management

This planned expenditure has been coordinated with all Services.

QUESTION: Please justify the need for this new aircraft. How does it differ from the Marines' HXM that Congress refused to fund?

ANSWER: Each Service has a need for a replacement vertical lift aircraft that will fulfill standing mission requirements. Each Service had proposed individual development programs to meet those needs. The Joint Services Advanced Vertical Lift Aircraft Development Program

(JVX) will develop one common aircraft to perform all the required missions: Army airborne intelligence gathering and electronic warfare, Marine Corps vertical assault and medical evacuation, Navy and Air Force search and rescue and Air Force special operations.

The Fiscal Year 1982 appropriations conference had agreed to provide no funds for the Marines' HXM helicopter as the program was viewed as lacking firm plans. The Services have firm agreements to fulfill their needs with a common medium vertical lift transport aircraft and have pooled their requirements and development funding resources in order to deliver the JVX at an affordable cost and at a reasonable risk. The JVX will fulfill the Marine Corps HXM mission with shipboard compatible, rapid response assault aircraft to enhance force projection without increased need for precious strategic air and sea lift assets. The JVX program will provide breakthrough technology for conventional tactical aircraft and holds great potential for widespread application for other mission needs as well as commercial uses.

QUESTION: With all the high cost modernization already burdening the Army budget, do you really think it wise to take on yet another new aircraft program?

ANSWER: The Army has an urgent need to replace four different configurations of 1960's and 1970's design Special Electronic Mission Aircraft (SEMA) with a tactical vertical take-off/landing aircraft that can operate in the 1990's threat environment. Affordability of an aircraft development for SEMA was an issue. A similar dilemma existed within each of the other Services. The Joint Services Advanced Vertical Lift Aircraft Development Program (JVX), because of the joint sharing of development costs and increased production quantities of a common airframe, will be much less costly for each of the Services individually. The overall costs to the government will be much less than if each Service attempted to meet its own mission requirements in separate programs. The JVX program, therefore, fills recognized Service mission requirements in a cost effective manner.

QUESTION: Have you assessed the cost impact of the JVX or other weapons modernization efforts? Would you be willing to give up or reduce any other new weapons system to make way for a JVX?

ANSWER: The cost impact of the Joint Services Advanced Vertical Lift Aircraft Development Program (JVX) on the Army's modernization effort was considered during the Army's Fiscal Year 1984-1988 Program Objectives Memorandum (POM) formulation. The JVX requirements and costs were examined against other Army programs and the Army chose to fund its share of JVX development costs in the POM. The Army could not afford the entire JVX development; however, because of the sharing of the total JVX development costs by all the Services, it will be much less costly for the Army. In the long term the JVX will replace:

- o Marine Corps - CH-46E, CH-53A, CH-53D.
- o Navy - HH-3A.
- o Army - OV-1D, RV-1D, RU-21A/B/C/H, RC-12D, EH-1, EH-60A/B.
- o USAF - HH-53/CH-53.

The advantages of a common airframe, not only within the Services but also between the Services, will offer lower acquisition costs, lower support costs and improved readiness.

QUESTION: Is it fair to state that the aircraft which Congress will be asked to develop will be a variant of the Bell Helicopter

XV-15 Tilt Rotor?

ANSWER: The Joint Services Advanced Vertical Lift Aircraft Development Program (JVX) Joint Technical Assessment Group convened on February 4, 1982 to consider the technology alternatives for the JVX. The configurations examined were: a pure helicopter, a compound helicopter such as the Advancing Blade Concept (ABC), the Tilt Rotor concept, and the Tilt Duct Fan concept. The initial assessment has been completed and the results favor the Tilt Rotor concept for an aircraft that can best satisfy the multimission requirements. This assessment was based solely on requirements and technical considerations. In June 1982, the Joint Service Operational Requirement Group and the Technical Assessment Group will work together to refine the balance between requirements, performance and cost.

Until the source selection process has been completed it would not be correct to categorically state that the Tilt Rotor concept will be used in the JVX program.

QUESTION: What are the special missions which each of the Services will have for a rotary wing aircraft?

ANSWER: The requirements to be met with a common vertical lift aircraft include:

- o Army Special Electronic Missions.
- o Marine Corps Medium Assault Transport.
- o Navy/Air Force Combat Search and Rescue.
- o Air Force Long-Range Special Operations Force.

Each Service requires that the aircraft developed to satisfy its missions have world-wide self-deployment capability.

QUESTION: What are some of the unique characteristics being sought in the rotary-wing aircraft development program?

ANSWER: The Joint Services Advanced Vertical Lift Aircraft Development Program (JVX) characteristics are based on the vertical lift requirements of the Services. The key needs of each Service are:

- o Army
  - Carry 4,600 pounds of special electronic warfare equipment.
  - 250 knots cruise at 30,000 feet, 4 hours mission endurance.
- o Marine Corps
  - Carry 24 troops 200 nautical miles and return.
  - Amphibious assault from 50 to 200 nautical miles.
  - Lift 8,300 pounds external load.
- o Navy
  - A minimum radius of 400 nautical miles.
  - 250 knots cruise.
- o Air Force
  - Carry 12-24 troops, 400-700 nautical miles.

All Services have the additional need for world-wide self-deployability. The combination of these needs lead to an aircraft that is capable of vertical take-off and landing with high airspeed, long range and large payload. Current helicopters, even with product improvement, would fall far short of these capabilities. The JVX will be unique in offering these capabilities in one aircraft.

QUESTION: This is a very long development program, with a projected IOC of FY 1992. Given that fact, why is it necessary to start up the program with a $50 million budget in FY 1983? Couldn't this program be started up with a smaller rate of FY 1983 funding?

ANSWER: The Joint Services Advanced Vertical Lift Aircraft Development Program (JVX) program would begin in fiscal year 1983 with the first production aircraft projected for delivery to the Marine Corps in 1990 and a projected Initial Operational Capability (IOC) for the Marine Corps in 1991 and the Army in 1992. There are two major factors which influence the $49.8 million budget request for fiscal year 1983. First, as a common aircraft for the Services, the JVX program must consider the multimission aspect of the aircraft. This will require additional system integration, engineering and development in the early phase of the program. Second, experience gained in the development of aircraft which are currently being fielded has shown that by properly planning and adequately funding early in the program, costs can be reduced later in the program. With proper early planning, acquisition cost can be reduced and support costs of the fielded equipment can also be reduced. Reliability, maintainability, sustainability and logistical support must be developed in the initial phase of aircraft engineering. If this is accomplished, the life cycle cost will be reduced.

QUESTION: What are the proposed procurement quantities for this multi-service program? What is the estimated acquisition costs?

ANSWER: The initial assessment by the Joint Service Operational Requirements (JSOR) Group have identified the following aircraft quantities:

- Army	284
- Marine Corps	552
- Navy	50
- Air Force	200
	1086 airframes

The JSOR Group and the Joint Technical Assessment Group will conduct trade-off analyses of requirements, performance, and costs during June 1982. In conjunction with the efforts of these groups, the provisional Joint Services Advanced Vertical Lift Aircraft Development Program (JVX) program management office will develop the acquisition strategy for the program. The acquisition cost range will be a function of the aircraft configuration and the acquisition strategy developed for the request for proposal from industry. We expect to have an acceptable developmental estimate of acquisition costs by midsummer.

QUESTION: Has the Joint Services Technical Assessment Group completed its cost versus trade-off analyses to refine the FY 1983 budget requirements for the program?

ANSWER: The Joint Services Technical Assessment (JSTA) Group has completed the initial assessment. The JSTA has developed a range of cost estimates based on aircraft concept and configuration of the concept. During June, the results of the JSTA will be refined and merged with the results of the Joint Service Operational Requirement Group. These groups will conduct trade-off analyses to achieve a balance of requirements, performance and costs. In conjunction with the efforts of these groups, the program acquisition strategy will be determined. These elements would then lead to the final cost estimate. The current assessments indicate the fiscal year 1983 budget request of $49.8 million is required.

QUESTION: What is the projection for FY 1984 funding?

ANSWER: The current estimate of the Fiscal Year 1984 budget request is $166.8 million for the common platform and $16.4 million for the services mission systems activity for the total program.

QUESTION: FY 1982 funds are now being used to start-up this program. What efforts are being undertaken with these funds? At what costs?

ANSWER: Each Service has programmed $1.5 million in fiscal year 1982 for the Joint Services Advanced Vertical Lift Aircraft Development Program (JVX) program. These funds are planned to be expended for:

o Joint Operational Requirements and Technical Assessment Groups	$1.0 million
o Economic Analysis	0.5 million
o Independent Cost Estimate	0.2 million
o Request for Proposal Preparation	2.2 million
o Services In-house	0.6 million
	$4.5 million

QUESTION: Another major Army helicopter program is the Army Helicopter Improvement Program (AHIP) program. This program will upgrade OH-58 scout helicopters providing target acquisition and designation for other Army helicopters and field artillery. How does this relate to the AH-64?

ANSWER: Air cavalry and attack helicopter units are equipped with mixtures of scout and attack helicopters. Doctrinally, these helicopters are employed in teams. Army force structure plans call for AHIP scout helicopters to be placed in all units equipped with the AH-64. The AHIP Cost and Operational Effectiveness Analysis (COEA) showed during wargame analyses that the two systems are very compatible, producing synergistic results. The AHIP organizes the battle situation by observing the threat, identifying concealed battle positions for the AH-64, acquiring targets, coordinating supporting artillery and close-air support, and distributing the AH-64 fires. When employing HELLFIRE, the AHIP can assign a target to the AH-64, and the AH-64 can engage it using its own laser designator; the AHIP can laser designate so that the AH-64 can hide after it launches HELLFIRE; or, the AHIP can laser designate a target for indirect HELLFIRE launches from a concealed AH-64. The AHIP exerts positive command and control and provides the battlefield and firepower management to reduce losses while increasing kills.

The AHIP is ideally suited for this purpose because it has the day, night, and adverse weather target acquisition/designation capability and performance for world-wide employment to make it compatible with the AH-64. For example, in comparing daytime AHIP and AH-64 laser designation capabilities, the AH-64 has about **[deleted]** advantage due to the longer focal length of the AH-64 day television sensor **[deleted]** and the capabilities are (deleted) at night **[deleted]**. These are specification values based on autonomous designation. The daytime disparity is not critical because the AHIP is less detectable and operates closer to the threat in performing the Scout mission. In other measures, the laser designators are (deleted).

Although AHIP is most cost effective when operating with the AH-64, analyses have shown that AHIP also makes a significant, cost effective contribution in reducing losses and increasing kills for AH-1S attack teams. Also, the AHIP is needed for the air cavalry and artillery roles, where it will collect real-time battle information and targets, and adjust conventional and COPPERHEAD artillery fires. The air cavalry AHIPs will normally employ and integrate firepower from multiple sources such as attack helicopters, close air support, artillery, and other ground combat elements when called on to fix or delay the enemy. In the field artillery aerial observation (FAAO) role, the AHIP will acquire targets, adjust conventional fires, and laser designate for COPPERHEAD. The AHIP scout will have a digital data link capability to interface with TACFIRE and provide automatic target handoff to this fire support management system. The accuracy of the laser designator and aircraft navigation system should enable AHIP to pass targets to TACFIRE and provide fire for effect on the initial call.

QUESTION: What is the current development approach for the AHIP program?

ANSWER: The Army Helicopter Improvement Program (AHIP) development approach is tailored to the fielding of an improved scout helicopter capability in the mid-1980's. Because the Army considers the modification approach to have an overall low risk, the AHIP schedule has been compressed to 56 months from full scale engineering start to Initial Operational Capability (IOC) to be compatible with the fielding of the APACHE attack helicopter. The approach places the overall mission equipment/aircraft interface and system performance responsibilities with the selected aircraft prime manufacturer, Bell Helicopter Textron, Inc., (BHT). The R&D effort is being performed under a fixed price incentive contract with BHT with negotiated ceiling priced production options for the first two years of production (60 aircraft). BHT, in turn, has executed fixed price contracts with its AHIP subcontractors such as McDonnell-Douglas and Sperry. First flight of the air vehicle will occur in August 1983 with first flight of a full-up AHIP system including the mission equipment package in October 1983. Army development and operational testing will begin with three of the five prototype AHIPs in July 1984, followed by first production deliveries in November 1985. IOC is scheduled for June 1986. The following is an outline of the AHIP program milestones:

a.	Completed:	
	Special Army Systems Acquisition Review Council (ASARC)	Nov 79
	ASARC Management Review	Jul 80
	Required Operational Capability (ROC) Approval	Jan 81
	Acquisition Plan Approved	Apr 81
	Source Selection Evaluation Board	Apr- Aug 81
	Under Sec of Army/USDRE Reviews	Sep 81
	Engineering Development Contract Award	Sep 81
	Preliminary Design Review	Mar 82
	OSD Program Go-Ahead Review	Apr 82
b.	Future:	
	Critical Design Review	Nov 82
	Long Lead Time Items Release	Jun 83
	Initial Flight Demonstration	Oct 83
	In Process Reviews	Jun 83/Feb 84 /May 84
	Long Lead Tooling/Fabrication Release	Feb 84
	Contractor Test Completed	Jun 84
	First Production Option Release	Jun 84
	Development Testing/Operational Testing	Jul 84 -Jan 85
	Milestone III Decision	Apr 85
	Production Award	Jun 85
	Initial Delivery	Oct 85
	Initial Operational Capability	Jun 86

QUESTION: The Army has requested $45.1 million in advance procurement and $75.8 million in R&D for the AHIP program. The House Armed Services Committee recommended AHIP be terminated because total program costs have jumped from $1 billion to $2.5 billion while the total buy dropped from 720 to 578 aircraft. Isn't a $2.5 billion program for scout helicopters simply unaffordable?

ANSWER: The Army does not have a light helicopter which can perform the scout mission. The OH-58A and OH-6A are observation helicopters. They do not have the power, maneuverability, capability to acquire targets or capability to standoff from threat weapons systems necessary to operate day/night or in adverse weather conditions with the APACHE and COBRA attack helicopters and field artillery units. Although the OH-58C with its improved engine performance is currently used in the scout role, it does not meet the maneuverability or target acquisition designation requirements to be compatible with the APACHE and COBRA.

The Army Helicopter Improvement Program (AHIP) with its mast mounted sight (MMS) will give the scout/attack helicopter team the capability of remote acquisition/designation of targets by a scout with only the MMS exposed. This capability allows indirect fire target engagements by the APACHE from fully concealed positions. With the target acquisition/designation range capability of the MMS, the AHIP will be able also to increase the standoff distance from threat weapons for the entire attack team thus reducing the vulnerability of the team.

If AHIP is terminated, the Army would lose the synergistic effect of AHIP operating with the APACHE and COBRA attack helicopters. As a result, the Army would not realize the full potential of the scout/attack team. The Army would also lose a highly mobile laser designator for COPPERHEAD guided projectiles and Air Force laser guided munitions. Mobility is essential to change positions rapidly and see around battlefield obscurants.

The current baseline development estimate for program acquisition cost is $2.5 billion in escalated dollars for 578 aircraft. There has been cost growth since the original estimates were completed for generic, "paper design" AHIP scout. The growth is attributed to:

a. Improvements to capability to provide worldwide employment.
b. Program stretchout.
c. Definition of the design during source selection.
d. Budgeting to "most likely" estimates.

Given the above factors, the Army decided following source selection to reduce quantity and live within programed dollars rather than seek additional funds.

Even with this growth, alternatives such as the totally new development of an advanced scout helicopter, conversion or procurement of COBRAs for the scout mission, or using the APACHE as a scout/attack helicopter are all more costly than the AHIP.

AHIP resources have been programed into the Army's Program Objective Memorandum (POM) and extended planning annex. The program is affordable within the Army's projected total obligational authority.

The AHIP is a modification to an existing inventory airframe and is currently in research and development under a fixed price incentive (FPI) contract with ceiling priced-options for the first two production years.

The FPI contract should provide a significant cost control measure from the viewpoint of limitations on the contractor and enhancement of discipline in the configuration control process.

The bottom line is that the Army is obtaining the best available solution to the scout requirement at minimum cost and risk in light of other alternatives. If this window is closed, this opportunity will not be available again at a comparable price.

OPERATION AND SUPPORT

QUESTION: The costs to support weapon systems, the so called operation and support tails, are increasing from $421 million to over $1.4 billion in just two years. Although this is accounted for by the introduction of new systems, at what point do you expect to see a leveling-off of the estimates?

ANSWER: Operating and supporting costs are directly related to the introduction of new materiel systems. These costs are increased by fielding additional types of systems and increased densities of each of these types. Operating and support costs can be expected to level off when the rate of fielding new systems levels off.

QUESTION: What are the force modernization costs to operate and maintain these new systems through the five year plan?

ANSWER: OMA appropriation support for new or modernized systems in the Active Army provides primarily for transportation; initial stockage and recurring repair parts; fuel; new equipment training and follow-on school training for operators, mechanics, and supervisors; supply depot and maintenance depot operations and associated activities; and related base operations support. The OMA incremental support cost estimate for the five year plan for for the Active Army is as follows. The specific increase for each year over the previous year is also indicated.

Fiscal Year	Total Increment $ Billion	Yearly Increase $ Billion
1983	1.44	.50
1984	1.61	.17
1985	2.08	.48
1986	2.66	.59
1987	2.88	.22

QUESTION: The Committee is aware of the Army's commitment to developing a cost accounting system for long-term O&M costs of new weapon systems. But the budget justification seems to conflict with the Army's internal programing data. For example, the budget assumes a cost of $4.1 million for fuel and spares in support of an M-1 tank battalion. However, the Army's internal reporting systems indicate costs closer to $8.7 million for this support. What accounts for the discrepancy?

ANSWER: The discrepancy between the two amounts can be explained. The $4.1M referred to from the budget does not support the fuel and spares of an entire M-1 tank battalion. It only covers the fuel for the M-1 tanks themselves and the OMA funded spare parts for organizational direct and general support maintenance of those M-1 tanks. The larger $8.7M CBO estimate includes these costs and additional estimated costs of fuel for all other equipment in the battalion plus OMA funded spare parts for all levels of maintenance through depot level for all of the battalion's equipment.

QUESTION: One of the major factors in determining adequate funding levels for operation and support is the reliability of production deliveries to the field. Have the projections for weapon systems deliveries changed since the budget submission?

ANSWER: Projections for new or modernized weapons and equipment systems deliveries to field commands have changed since the budget was developed. These changes primarily reflect production line variability and Army priorities.

To improve management in this arena of uncertainty the Army has added a new exhibit to the annual budgets prepared by each major Army command to address OMA requirements associated with the support of new or modernized systems. The command budgets submitted in July, include both the execution year, FY 1983, and the next budget year, FY 1984. The new exhibit will be the basis for realigning OMA budget estimates by command, individual system, and subprogram to reflect updated fielding distribution quantities. The comparison requested will be available after the new exhibits are received and analyzed in late summer/fall.

QUESTION: The Army is changing its maintenance philisophy, concurrent with the introduction of new systems, to place more emphasis on repairs in the field. Can you expect a stretch-out of time between depot overhauls as a result of this new maintenance concept?

ANSWER: This new concept will not stretch out time between depot overhaul. In fact, we expect no impact on the peacetime depot overhaul program. In wartime, overhaul of end items would be limited due to the tactical environment. However, should an end item be damaged sufficiently to require depot level repairs, this is quickly determined by a battle damage assessment team in the forward area and the item is recovered directly to depot level. The unit then obtains a replacement from the supply system.

QUESTION: Army witnesses have testified that the "fix forward" concept of field maintenance is not expected to require increases in personnel. By inference, is it reasonable to assume that fewer personnel will be required at the depot level?

ANSWER: The Forward Support Maintenance concept is not expected to impact on depot resources. This concept is an orientation of tactical maintenance organizations toward forward area maintenance. There is no corresponding forward migration of maintenance resources to a specific location on the battlefield or to a lower level of maintenance support. Established maintenance tasks allocated to the maintenance categories of organizational, direct support, general support, and depot are unchanged. Forward Support maintenance uses existing skill levels, organized into Maintenance Support Teams, to move about the battle area and accomplish maintenance as far forward as practical or the item is evacuated to a level which can perform the task.

QUESTION: Although the Army assumes no increase in personnel for maintenance battalions, CBO has learned that the Army plans to provide three forward support battalions for the Division Support Command. How does this factor square with the assumptions?

ANSWER: Division Maintenance Battalions under the Division 86 organization actually have fewer personnel since three Forward Support Companies are shifted from the Division Maintenance Battalion to the three Forward Support Battalions. This shift was done in a deliberate effort to formalize maintenance practices, organization, and equipment with doctrinal changes related to Forward Support Maintenance. The Forward Support Maintenance Companies will be increased in size due to the addition of a recovery, fuel and electric, generator repair capability and organization of tailorable system support teams to provide forward support in the brigade sector. The exact increase in size depends upon the mix of system support teams. Thus, while the Division Maintenance Battalion is smaller due to the shift of its three Forward Support Maintenance Companies to the three Forward Support Battalions, there is a net increase in total maintenance strength resulting from the additional maintenance capability provided in each Forward Support Maintenance Company. For example, there is a net increase of 185 maintenance personnel in the Mechanized Infantry Division under the Division 86 organization design.

QUESTION: Can you describe the change required to implement this "fix forward" concept within the existing structure of the maintenance battalions?

ANSWER: The current structure of the Division Maintenance Battalion consists of six companies: HQ and Light Maintenance, Heavy Maintenance, Missile Support, and three Forward Support. Under Division 86, the Division Maintenance Battalion consists of only four companies: HQ and Support, Light Maintenance, Heavy Maintenance and Missile Support. The shift of three Forward Support Maintenance companies to the Forward Support Battalions gives the Division Maintenance Battalion more flexibility to concentrate its remaining maintenance resources on specific problem areas. The Division Maintenance Battalion can also provide back-up Maintenance Support Teams to the Forward Maintenance Companies in the Forward Support Battalion on an as-needed basis. Thus, while the change required within the existing Maintenance Battalion structure is minimal, flexibility and span of control for maintenance operations are significantly enhanced.

QUESTION: What is the estimated cost to equip a maintenance battalion with tools, spares and testing equipment?

ANSWER: Estimated cost to equip a maintenance battalion will vary based on the type, Divisional/Non-Divisional and whether an armor, mechanized, or infantry division. The cost to equip a typical divisional maintenance battalion with the categories of equipment requested is estimated at 22.1 Million. This estimate is based on the assumption that "spares" refer to the Division Authorized Stockage List (ASL) maintained by the maintenance battalion. It must be understood that the estimate is subjective since factors affecting equipment change regularly based on modification to authorized items to meet current mission requirements. Also the number of ASL line items and quantity of each of those line items stocked will vary due to criteria for stockage being based on demands, essentiality, economic order quantities and order ship time. In addition, the Army is in the process of transitioning to a Combat ASL Stockage policy. This is a process of eliminating stockage of non-essential items and retaining/adding combat critical, mission essential items only. Therefore, during this transition process, ASL values will fluctuate significantly.

M-1 TANK REQUIREMENT

QUESTION: Let's look at your $2 billion request for M-1 tank procurement in 1983. First, have you made any headway lately in bringing down costs of this weapons system?

ANSWER: Yes. The FY81 tank production contract was signed at about 18% less than proposed. An intensive Government "should cost" analysis established a strong negotiating position then and the same effort is going on now in preparation for the FY82 contract negotiations.

The Army is also considering other cost reduction actions such as multi-year contracting, second source development, and breaking out selected components for competitive procurement.

QUESTION: The 1982 supplemental and 1983 budget programs were designed to increase production and establish more economic procurement rates. Now the Department is proposing to eliminate the $126 million supplemental request and cut back the 1983 request by about $200 million. How will production numbers be changed by this reduction, and what are the long-term cost increases that would be incurred?

ANSWER: Elimination of the $126 million FY82 supplemental request for M1 surge will not affect FY83 tank production.

The proposed $200 million cut in FY83 will slow the production build-up toward 90 tanks a month; in fact, it will cap it at about 60 tanks a month, or 720 tanks a year.

If this lower production rate holds in the outyears, there will be a cost increase associated with program slow-down and subsequent stretch-out. Initial Army estimates are that total program costs would increase by about $2.3 billion, causing the total program unit cost to go up from the $2.77 million now estimated to a little over $3 million per tank (escalated dollars).

QUESTION: The original development estimate on the M-1 projected a procurement buy of 3,312 tanks. During the development stage this requirement was increased to 7,058. Was this change due to the nature of the threat, or to efforts to achieve more economical production rates for the M-1?

ANSWER: Both reasons cited in the question were factors in the decision to increase planned production totals.

Threat assessments and a detailed study of US tank requirements (the "Wagner" study) developed the 7058 figure, described as the initial M1 operational objective.

The larger production quantity makes more economical production rates feasible, and improves the Army's mobilization capability because two modern tank plants are being facilitized.

QUESTION: How much of this increase is directly related to procurement of 120mm armed M-1s? Was the requirement for the 120mm armed M-1 firmly identified back in the initial development phase for the M-1?

ANSWER: About $56 million of the FY83 request is associated with the M1E1. Most of these funds are for special tooling or block improvements.

The 120mm gun requirement was not identified initially. The German developed 120mm gun was adopted in 1978.

QUESTION: The Soviets have 45,000 tanks. How many are of the T-64 and T-72 variety? Was the decision to procure 120mm armed M-1s based upon the threat posed by the follow-on T-80 Soviet tank.

ANSWER: As of March 1982, the DIA estimated the December, 1981 Soviet tank inventory at 49,600 tanks, broken out as follows:

T-34: [deleted]
T-54/55:
T-62:
T-64:
T-72:
NST (T-80):
Heavy Tanks: [deleted]
49,600

The initial decision to adopt the 120mm gun was based on projected threat estimates of the next generation Soviet tanks; as perceived in 1978. Current intelligence indicates this decision, in retrospect was correct.

M-1 COST GROWTH

QUESTION: What percentage of the cost growth in the M-1 program is solely attributable to inflation and what percentage to program changes?

What will be the added cost to build an M-1 tank with the 120mm gun?

ANSWER: In the hardware line, 93% of the M1's cost growth is attributable to inflation, with 7% due to program changes or real cost growth.

When the total program is considered, about 81% of the total growth is inflation, 12% program changes, and 7% is estimating changes.

In FY83 constant dollars, an M1E1 will cost $200,000 more than an M1. This increase buys the 120mm gun and the block improvements plus their integration into the tank.

M-1 BLOCK IMPROVEMENTS

QUESTION: Aside from the 120mm gun improvement, what other product improvements are being considered for the M-1 tank? What are the estimated additional costs?

What is the projected cost of the M1E1 block (major) improvement program? Are these projected improvements driven by projected Soviet improvements in tank technology? What will the program do to M-1 unit cost?

ANSWER: The M1E1 tank, equipped with the 120mm main gun and scheduled for first production in 4th quarter FY85, will also have the following product improvements:

- better armor protection
- an NBC protective system with crew cooling
- improved suspension components

These improvements are preplanned upgrades to the M1 to meet projected growth in Soviet tank technology. The cost of the improvements is already factored into program estimates; the $2.77 million per tank cost reported in the SAR and in testimony is an average price that includes the cost of the 120 gun and the block improvements.

M-1 CAPABILITIES

QUESTION: Using the current M-1 power-train durability figure, what is the current probability of the M-1 completing a 50-mile road march without a power-train failure? What about a 100 or 150 road march?

ANSWER: The current M1 power-train durability figure, as determined by the final DT/OT III assessment conference, is .48 (previous figure was .37). Using this figure, the probabilities of completing the road marches are:

50 miles - .99
100 miles - .98
150 miles - .97

QUESTION: Has the M-1 tank met its development estimate for the following tank characteristics?

-- acceleration
-- cross country speed
-- cruising speed
-- hit probability, KE round

ANSWER: Yes, it has met all of these requirements:

	MATERIEL NEED REQUIREMENT	STATUS
Acceleration	6-9 seconds	5.8
Cross-country Speed	25-30 mph	30
Crusing Speed (Max speed governed - no requirement for cruising speed)	45 mph	45

Hit Probability (KE): M1 has met the KE round hit probability requirement.

OPERATION AND SUPPORT

QUESTION: There is a real concern that the Army is underestimating the operation and support costs for the M1 and Fighting Vehicle Systems. Although the Army has taken issue with a CBO analysis of these costs, even the Army's estimates suggest a sharp rise in the support tail for these systems. General Anson, are you satisfied that the out year programs adequately provide for support of these systems?

ANSWER: Out year operations and maintenance and military construction funds for the M1 Tank and M2/M3 Fighting Vehicle Systems adequately reflect resources required for their support in those areas. Operations and maintenance cost factors for both the M1 Tank and the FVS are published annually in the Army Modernization Information Memorandum (AMIM). These factors are prepared by system experts in the M1 and FVS Project Manager Offices and are always based on the most current projections, tests, or operational data, depending on where the vehicle is in its development cycle. These cost factors are analyzed and approved by the Army Staff prior to publication of the AMIM and represent the Army's best estimate of what these systems will cost to operate. The Army develops its operations and maintenance cost projections using the AMIM data in conjunction with M1 and FVS distribution plans.

QUESTION: CBO has analyzed the Army's internal cost estimates comparing the support costs of the M-1 and M-60A3 tank battalions.

At a minimum the cost to support an M-1 battalion could be 20 percent higher than an existing M-60A3 battalion. An Army study indicates that costs could be 19 percent higher. Since the CBO estimates were derived from the same data base used by the Army, what explains the variance between these estimates?

ANSWER: The Army is currently reviewing the latest data and documents which explain how the CBO estimate was calculated.

As soon as the analysis is complete, the Army will provide a detailed explanation of the variance between these estimates.

COST OF REPAIR PARTS AND SPARES

QUESTION. Turning to the Fighting Vehicle System, Army data suggests an FVS battalion will be a minimum 23 percent more expensive to support than the current M-113 battalions. The largest increases occur in the repair parts and spares estimate. Why?

ANSWER. The Army is unable to comment on the details of the CBO study without knowing how those estimates were derived.

However, it should be understood that most of the cost elements in the mechanized infantry battalion equipped with M-113's or IFV's remain about the same. There are ten more people required for the mechanized infantry battalion equipped with IFV's and ten more trucks required to carry the additional fuel and ammunition for the IFV battalion. The greater firepower and maneuverability of the IFV battalion requires that these supplies be available.

It should also be understood that the IFV is a much different vehicle than the M-113, both in capabilities and in cost to operate. While more expensive to operate than the M-113, the IFV will provide a definite advantage to the soldier who must fight in a mechanized infantry battalion.

PERSONNEL LEVELS

QUESTION. Although the Army has acknowledged increases in fuel, spares, and repair parts for the FVS, there is an assumption that costs will decline for personnel, training, and supplies. Isn't this inconsistent with previous testimony which asserts that personnel levels will remain stable?

ANSWER. The Army has never taken the position that there would be a decline in costs for personnel, training, and supplies with the Mechanized Infantry battalion equipped with Bradley Fighting Vehicles.

In reality, the official TOE for the Mechanized Infantry battalion (SRC 07245J) shows a total number of 882 personnel for the four-company IFV battalion and 872 personnel for the three-company M-113 battalion.

TURRETLESS TANK

QUESTION: What is the status of the turretless M-1 tank program? Please background the Committee on the performance and cost implications of this idea.

ANSWER: The Army is not planning to radically redesign the M1 tank in the immediate future. Like any tank, it is not invulnerable but it was designed with todays threat in mind and adequately meets that threat. However, in structuring the M1 program, the Army recognized from the outset that improvements would be required to allow the M1 to keep up with the changing threat. The outgrowth of this prior planning was the M1 preplanned product improvement program which results in, among other things, the M1 being equipped with a 120mm main gun and enhancements to its armor protection, funds for these improvements are included in the current FYDP. Looking further into the future, the Army saw that the trends were leading toward ever increasing antiarmor capabilities. Thus, the Army initiated a test bed program to investigate ways in which we could further modify the M1 to keep up with the threat we expect in the 1990's.

The Tank Test Beds are being developed to explore options for advanced vehicle designs which significantly increase tank survivability and operational characteristics through innovative integration of the current component and technology base. One of the concepts being evaluated in the test bed program is a conceptual approach that would completely eliminate the turret, except as a rotating platform for an externally-mounted weapon. An automatic loading system coupled with an externally-mounted weapon on a rotating platform will be evaluated in the Tank Test Bed program as a means of reducing the armored volume of a future tank. This could result in substantial reductions in weight and vehicle size of future close combat vehicles, thereby enhancing survivability. The function of loading would be accomplished by the automatic loader allowing a reduction in the crew from four to three reducing peacetime O&S costs and enhancing our war fighting capability by availing additional manpower to accomplish other combat missions.

The chassis of the M1 will be the basis of the test beds and a goal of the program will be to develop options which preserve the M1 facilities and utilize M1 components to the maximum degree possible. The test beds are not prototype tanks but test vehicles that will provide data and information on which future designs may be developed.

Funding for the tank test bed program is shown below:

FY83	FY84	FY85	FY86
$7.8M	$7.9M	$4.6M	0

The funding for the tank test bed is included in PE 6.36.02 Advanced Land Mobility System Concepts, Project D118, Combat Vehicle Technology.

M-1 LOGISTICS SUPPORT

QUESTION: A GAO report issued last year recommended that the Army reduce the planned procurement of 348 M-1 tanks for training. What is the status of this proposal?

ANSWER: In response to the subject report, the United States Army Armor Center (USAARMC) at Fort Knox has reviewed the requirement for M1 tanks for training. The current requirement for the USAARMC through FY88 is 192. The requirement for tanks at Vilseck, (7th Army Training Center) Germany, is 21 and 19 at Aberdeen Proving Ground. This brings the total current requirement to 232. The number quoted for the United States Army Ordnance Center and School, (Aberdeen Proving Ground) is considered inadequate and is being reviewed.

QUESTION: GAO concluded that the Army made a production decision to reject components which were cheaper to maintain on the basis of higher procurement cost. Is this a fair assessment?

ANSWER: The GAO allegations contained in the draft report of "hundreds of millions of dollars" lost due to the Army's buying inexpensive parts could not be substantiated, and based upon strong Army challenge of these drastic cost savings claims, the figure was removed from the final report.

QUESTION: Is it fair to conclude that the budget for M-1 logistics support is based on requirements derived from operational test and evaluation phases?

ANSWER: The logistics support budget is generally based on OT defined requirements. It is also based on other factors independent from testing. For example: Spares requirements are based on standard provisioning models which use OT and DT reliability data and initial fielding data, but are recomputed annually using the latest demand supported data available. Depot maintenance requirements are also partially based on OT and DT reliability and durability (life of the component) results. Test sets and special tools are another OT/DT related area. Requirements for these were also evaluated during testing and adjusted to meet actual requirements.

QUESTION: Considering the recent testing for M-1, how have the budget assumptions for FY 1983 changed from last year's program?

ANSWER: Procurement budget requests could be affected by test results (e.g., major re-design required), however, they are really functions of end item requirements, facilitization plans, logistics, and spares requirements, etc.

The relationship of test data to O&S cost estimates is significant, however, and O&S estimates are updated as confirmed test data and field demand support becomes available.

COST GROWTH IN BRADLEY FIGHTING VEHICLE

QUESTION: The budget seeks $853 million to continue the 600-unit production level for the Bradley fighting vehicle system. Has the Army made any progress at all in bringing down the cost growth in this program.

ANSWER: Yes. The Army has demonstrated cost stability in the Bradley program. FY 1980 production is approximately 50 percent complete and is within the program budget. FY 1981 and FY 1982 have been negotiated at affordable prices and should also be brought in within budget. Cost do appear to be stabilizing and the Army is taking all measures to reduce costs through the most logical acquisition strategies that balance cost, schedule, risk and quality. The program office believes that outyear estimates are accurate within plus or minus 10 percent.

STATUS OF PRODUCTION PROGRAM FOR BRADLEY

QUESTION: Isn't the Bradley vehicle a stable production program by now? Why can't you go after a multiyear contract? Wouldn't that achieve substantial cost savings? (If the program isn't stable enough for MYP, why isn't it? What's the problem?)

ANSWER: The Bradley vehicle is a stable production program. Multiyear contracts are being discussed with the prime and subsystem contractors. Although cost savings are anticipated as a result of these multiyear initiatives, the amount of the savings won't be known until firm proposals are submitted by the contractors.

LOWER PRODUCTION RATE FOR BRADLEY

QUESTION: Why don't you consider a lower production rate for the Bradley vehicle to achieve budget savings (as you did with the M-1)? Have you done any cost scenarios on various production levels? If not, why not?

ANSWER: During August-September 1981 the Army examined several alternative cost scenarios on various Bradley production levels. This was done in conjunction with an OSD imposed TOA reduction. The result of this effort was lower production rates in each year from FY 1983-FY 1987 with the production ramp from 50 to 90 vehicles per month being delayed from FY 1984 to FY 1985. No additional production rate decreases for Bradley are being considered.

OPERATION DRAWBACKS

QUESTION: Does the Bradley vehicle have any lingering operation drawbacks? How about its vulnerability?

ANSWER: The Bradley vehicle has no operational drawbacks. The system is currently transitioning from a vigorous contractor production test phase to the government's initial production testing. Minor problems have occurred during this testing, but solutions have been found in all cases to date.

The Bradley satisfies all design requirements for vulnerability.

BRADLEY IFV VS SOVIET BMP

QUESTION: The current Soviet infantry fighting vehicle, the BMP, is said to be superior to the M113A2. Will the Bradley IFV be superior to the Soviet BMP? How?

ANSWER: Yes. The BMP and the Bradley display radically different design concepts, but the Bradley is clearly a much better vehicle. The Bradley 25mm stabilized cannon provides a capability for suppressive firepower that the BMP does not have. The Bradley fire control systems can locate and hit targets in conditions which will blind the BMP. The Bradley can kill the BMP at ranges well beyond the BMP's range. With a much larger ammunition storage capacity, the Bradley crew can sustain combat much longer than the BMP crew. Contoured seating and vision blocks in the Bradley will deliver an infantry squad much better prepared for dismounted combat than the Soviet infantrymen riding in the BMP. The Bradley will cross obstacles which will stop the BMP.

The BMP is significantly lower in profile than the Bradley, yet Soviet designers sacrificed ground clearance (and thus mobility), crew comfort and ammunition storage capacity in the process. Combined with the Bradley's antimine belly armor, improved space laminate armor, faster acceleration, and accurate suppressive firepower while moving, these sacrifices mean the Bradley crew has a much better chance of surviving on the battlefield.

Some of the key parameters which directly relate to mobility, firepower, and overall effectiveness are shown below:

Parameter	Bradley	BMP	Measures
Hp/Ton	20.4:1	19.6:1	Acceleration
Ground Pressure	.53 kg/cm^2	.57 kg/cm^2	Trafficability
Ground Clearance	475mm	400mm	Obstacle Crossing
Trench Crossing	2.45m	2.0m	Obstacle Crossing
Vertical Step crossing	.91m	1.8m	Obstacle Crossing
Main Gun Range	2000+m	900m	
Rate of Fire	Single/100/200 rds/min	7 rds/min	
Main Gun Ammunition	900	40	
Gun Elevation	-10° to +60°	-4° to +33°	
ATGM Guidance	Semi-auto	Manual	
Turret Stabilization	Yes	No	
Night Vision Range	2000+m (Thermal)	900m (Image Intensification)	
NBC Protection	Individual	Crew (Overpressure)	
Antimine Armor	Yes	No	

The BMP exists now in many variant forms and is the result of constant improvement and upgrading over the last 15 years. It was the first infantry fighting vehicle in the world. Until the Bradley, it was the best.

PERFORMANCE REQUIREMENTS

QUESTION: Have all of the Bradley's subsystems met their performance requirements? Which are deficient?

ANSWER: The Bradley has met, and in many instances far surpassed, nearly all its design performance requirements. The following are those design requirements not yet demonstrated:

a. Swim speed: The requirement is to swim at 4.5 mph, while the Bradley has demonstrated a swim speed of 4.4 mph.

b. Combat weight: Improved suspension and body armor drove the maximum design weight of 47,000 pounds up to 49,500 pounds, but did not impact significantly on mobility or air transportability.

c. Some 25mm armor piercing ammunition demonstrated tracer burnout before the design range. A product improvement to correct this problem has been programed.

d. The time to repair faults at the organizational and general support levels is longer in a few instances than planned. Considering the lack of maturity of the system and its associated test equipment, the Army is confident of achieving its requirements in this area. Associated with this confidence is the demonstrated fact that the prime measure of system reliability (mean miles between failure) is averaging 27 percent higher than originally planned.

INCREASE IN COST ESTIMATE

QUESTION: The current cost estimate in the Selected Acquisition Report (SAR) for the Bradley is \$1.9 million, far above the FY 1972 dollar cost of the Bradley of \$559,000. To what is this increase attributable?

ANSWER: The \$559,000 unit cost is expressed in 1972 constant dollars. The \$1.9 million unit cost is in escalated dollars. The total difference, therefore, is the result of inflating the 1972 dollars to the actual or projected inflation in the year of delivery through 1991.

BRADLEY UNIT COST GROWTH

QUESTION: What impact did programed changes for the 25mm weapon and ammunition, improved reliability/durability testing, and the addition of back-up transmission program have on Bradley unit cost growth?

ANSWER: The program changes mentioned have all been incorporated in the Selected Acquisition Report, as noted in the cost variance analyses. The development estimate was increased by $191.5 million for the 25mm weapon program and by $289.5 million for the 25mm ammunition being added. Further changes have taken place since then to account for quantity, engineering support, estimating and schedule to reach the current program. Improved reliability and durability testing is reflected in many variance categories during both development and production and is about $8 million. The back-up transmission cost $15.5 million in added development costs. These costs are all in escalated dollars and the development costs are nonrecurring. On a unit cost basis, the 25mm gun added $27.7 thousand, the 25mm ammunition added $41.9 thousand, the back-up transmission work and improved durability/reliability testing together added about $3.4 thousand per vehicle.

INCREASE IN PROCUREMENT BUY

QUESTION: The original procurement buy for the MICV was to have been 1,186; Bradley procurement will total 6,882 vehicles. What was the reason for this six-fold increase?

ANSWER: The fighting vehicle procurement objective has fluctuated for 15 years. The major influences on the objective have been the threat which has steadily increased, US Army force structure which varies from year to year, various applications of a high-low mix fielding strategy linked with the M113, War Reserve requirement fluctuation, addition of the CFV requirement, and available funding. The latter has probably been the most influential factor, and the growth of the threat in recent years has added increasing urgency to the requirement. In 1968, near the peak of the Vietnam War, 5,333 Mechanized Infantry Vehicles was the objective. As the cost of these vehicles, with significantly greater capabilities than personnel carriers, became clear, procurement objectives were reduced based on funding estimates. Austere versions of the vehicles were also considered. Funding constraints had their greatest impact on planning in the early-1970's and the 1,186 figure probably is the lowest objective ever identified. The 1973 Arab-Israeli War had a major influence in reinforcing the need for mounted infantry to support tanks and for an increased antiarmor missile capability. Several major studies were conducted in the mid-1970's which showed the necessity for the increased mechanized infantry capability of the IFV with TOW and a two-man turret over the Mechanized Infantry Vehicle, and for use of the slightly modified version, the CFV, for the cavalry. The addition of the CFV requirement almost doubled the objective. The current procurement objective of 6,882 vehicles has been a stable Army goal since 1979 and is an appropriate quantity to balance the mechanized infantry's modernization with overall Army modernization within current defense funding constraints.

SECOND PRIME CONTRACTOR FOR BRADLEY

QUESTION. Is the Army ready to make a determination as to whether post-1983 acquisition strategy will include a second-prime contractor? When will such a determination be made?

ANSWER. Yes, the Army is evaluating second source for the Bradley. A decision on second source is scheduled for June 1982 with the Congress being notified of the Army decision by 30 June 1982.

RATTLER "Costs"

QUESTION: A reduction of $12.9M was made for RATTLER, a new medium range anti-armor weapon designed to replace Dragon. The Army's descriptive summary of the RATTLER program stated that "the program plan is recognized as having high schedule/cost risk". What is the added cost of delaying RATTLER?

ANSWER: The "cost" resulting from reduction of $12.9 million is three-dimensional: schedule, technical risks, and additional funding required. The reduction causes the IOC date to be slipped six months. Technological risks which were to be reduced by adequate up front funding are now increased, and the additional funding requirements for the program increased by 50 million dollars.

Army Modernization

QUESTION: A reduction of $10.0 million was made to MAINSITE, a program which would provide a test bed for testing the interoperability of C3I systems. How will this reduction affect the program? Will initiation of procurement of the Phase I system be delayed? Will design work continue on hardware and software systems?

ANSWER: The reduction will delay the acquisition of hardware and software to be tested during Phase I. New contract negotiation effort will be required since the bids being evaluated were based on a different initial funding level for starting Phase I. The cumulative effect of reduced funding and delaying the award of the contract will be to extend the program by at least six months with subsequent increases in total program costs. The critical impact of the reduction is to further delay the capability to fully test and load C3I systems, to confirm their interoperability with other systems and to test them in a realistic EW/ECM environment. Fielding of inadequately tested systems results in increased operating and support costs and expensive modifications. Essential MAINSITE design work and testing of early prototype hardware and software has been accomplished in prior years using the funds provided the US Army Electronic Proving Ground (PE 6.58.04A, Project DE94). Thus, the MAINSITE project to modernize the proving ground can be considered a new start only in the sense its management visibility was increased by the establishment of a separate program element (PE 6.58.07A).

QUESTION: The Army would reduce the UH-60 BLACK HAWK R&D line by $1 million to defer the UH-60 block modification program. Is this change any indication of a weakening in the requirement for UH-60 block modifications?

ANSWER: No it is not. The Army's requirement for a UH-60 block modification program remains firm. The block modification program was deferred only because of the requirement to reduce further the Army's anticipated Fiscal Year 1983 total obligational authority.

QUESTION: Can the engine upgrade and new composite rotor blade development being considered in this block modification effort be deferred beyond FY 1983 for another year or two.

ANSWER: Any delay in initiation of this program delays the subsequent fielding of the improved BLACK HAWKs. The Army plan is to incorporate these improvements in the production line starting in Fiscal Year 1987. Delaying initiation of two of the primary improvements will result in decreased fleet capability and the later requirement for a more expensive retrofit of aircraft already deployed.

QUESTION. A reduction of $15.6 million was recommended for the Advanced Rocket Control System, a classified program. Please provide a classified explanation of what this reduction entails in terms of cost and schedule for the program.

ANSWER. A reduction of $15.6M in D692 FY 83 funds will delay the program completion by 8 months and add $10M to the program cost. Program schedule is effected by the delay in procurement of the necessary materials to build prototypes for testing, and a reduction in manpower that is needed for both software and hardware design. The reduction in manpower forces the loss of skilled system designers which increases both technical and schedule risks. Program cost is effected by the cost of inflation due to program stretchout, and training of personnel for the outyear (beyond FY 83) design.

BATTLEFIELD DATA SYSTEM

QUESTION: The Army now wants $27.9 million for a new "Battlefield Data System" to replace SOTAS. How does BDS differ from SOTAS? Is it affordable?

ANSWER: BDS is now called the Joint Surveillance and Target Attack Radar System (JSTARS). JSTARS effectively merges the Army's BDS and the Air Force's Pave Mover programs into a single development. The services will jointly develop a common, modular, multi-mode radar system to meet both services' surveillance and targeting needs. Plans call for the Army to deploy the radar on the OV-1 MOHAWK: the Air Force, on the TR-1.

Previously, the Army had planned for SOTAS to meet only the division surveillance and target acquisition requirement. The longer-ranged JSTARS will service both the corps and division with a single system. Costs will be reduced by building on existing force structure, utilizing existing MOHAWK aircraft, and making maximum use of already-developed technology and production hardware. Feasibiliy studies are now underway to perform cost and performance tradeoff and assess the extent of hardware/software commonality which is possible.

JSTARS results from searching Army and OSD reviews in response to Congressional direction to define a less costly, viable alternative to SOTAS.

QUESTION: What is the projected unit cost of BDS? How does this compare with SOTAS?

ANSWER: Firm, formal cost estimates have not been prepared for the joint Army-Air Force program. The program itself is now being defined, with emphasis on using already-developed technology to reduce costs. Studies will be let to industry this summer to identify cost drivers and potential tradeoffs. Formal cost estimates will be identified once that process is complete.

High Technology Test Bed

QUESTION: The $10.7 million budget request for the High Technology Test Bed supports projects to improve the combat capabilities of the light infantry division concept. What projects are being initiated in FY 1983?

ANSWER: The $10.7 million figure you are referring to is the Research Development Test and Evaluation program element of the High Technology Test Bed. These funds support the following:

Projects	Funding
Distributive Data/Dispersed Command Post	$ 7.4M
Indirect Sighting System (Elevated Target Acquisition and Designation)	$ 1.5M
Netted Radar	$ .8M
Heading Reference System	$ .6M
Counter [deleted] Weapon Demonstrator	$ .4M
TOTAL	$10.7M

These funds are critical if the Army is to maintain the momentum of rapid deployment force development.

QUESTION: The Army has not identified the total estimated costs of the High Technology Test Bed program. Do you have any idea of how long you intend to operate the test bed, so that you can at least give us a ballpark estimate of total cost of the program?

ANSWER: The Army currently plans to operate the High Technology Test Bed through FY88. The initial objective for the 9th Infantry Division High Technology Test Bed is to field a prototype High Technology Light Division (HTLD) in FY85. This will be closely followed by the transition of additional light divisions to the HTLD design. In order to achieve this objective, our design concepts, both operationally and organizationally, must be tested and validated in FY83 and FY84. As such, our scheduled test work load will substantially increase in those years peaking in FY83 as compared to FY82. The FY82 testing is primarily devoted to platoon and company level organizational structures and concepts. FY83 and FY84 testing is designed to evaluate battalion and brigade level structures and concepts. These tests are more numerous, larger in scope, and more complex than the FY82 tests. Follow on developmental work and testing will be necessary in FY85-FY88 in order to further refine the HTLD and insure the efficient transition of other light divisions. The requested FY83 test budget with projected "ballpark" estimates are as follows:

($ Millions)

Appropriation	FY83	FY84	FY85	FY86	FY87	FY88
OMA	43.9	44.0	36.2	38.5	23.3	23.1
RDTE	10.7	57.8	40.4	23.1	12.0	-
Procurement	5.3	9.8	7.1	7.1	8.9	1.7

These estimates do not include HTLD fielding costs.

QUESTION: Will out-year funding remain within the $7-9 million range projected for the program in FY 1983 and FY 1984?

ANSWER: No, as indicated in the previous answer, it will not.

QUESTION: What have we gained from the Fort Lewis program so far? What has the Army done to exploit these advances?

ANSWER: Thus far the HTTB effort has resulted in: the development and approval of a new infantry division design; the determination and continued refinement of tactics and techniques to meet the requirements of the AirLand Battle Doctrine; and the initial validation of light force materiel requirements to execute that doctrine.

The objective is to field a prototype High Technology Light Division in FY85 followed by the transition of two additional light infantry divisions to the HTLD configuration by FY88. The Army considers this program to be one of its highest priorities and is accelerating and compressing its efforts to achieve the HTTB program objectives on time.

Remotely Piloted Vehicles (RPVs)

QUESTION. One of the programs Congress has strongly supported in past years is the Remotely Piloted Vehicle Program. This year the Army requests $77.9 million for full scale development of unmanned flying drones known as RPVs. What total program costs are we looking at? Give us the out-year projections.

ANSWER. Total program costs and outyear projections are as follows (Escalated $ in millions-RDTE):

FY82 & Prior	FY83	FY84	To Complete	Total
199.8	77.9	110.1	86.6	474.4

These costs include the initial day-TV capability and the follow-on night-FLIR capability. Total procurement (FY 85-FY90) in escalated dollars is estimated at $1130 million.

QUESTION. When will the Army made a decision to put RPVs in the field?

ANSWER. In February 1982 the Army approved the fielding of an engineering model to provide an early capability to the High Technology Division at Ft. Lewis in 1983. The Army will make a production decision in 1985 at completion of full scale development.

QUESTION. Does this include fielding of an early capability at the High Technology Division at Ft. Lewis?

ANSWER. Yes, the Army will field an early capability to the High Technology Division in 1983.

QUESTION. FY 1983 marks the start-up of the full scale development of the FLIR program. Is this high risk technology?

ANSWER. The FLIR program is not considered to be high risk technology. Current technical assessment is that the FLIR capability is achievable. This assessment is based on tests of a prototype.

QUESTION. The Army has stated that some $14.4 million of the RPV program is included for technology risk under the TRACE system. What elements of the RPV program are considered to be above-average risk?

ANSWER. Above average risks in FY83 include:

a. System integration of MICNS into the RPV system. MICNS is government furnished equipment to Lockheed, the RPV prime contractor and a potential for problems in integration exists.

b. Pacific Optic is fabricating the optics for the mission payload. Integration of the optics into the mission payload in time to meet the schedule is a potential problem.

c. Airframe was changed to a less expensive lighter weight design. Potential exists for delays in deliveries of the new airframe.

The $14.4 million was budgeted as TRACE for the RPV 52 month program prior to program fluctuations caused by budget cuts in the fall of 1982. These program fluctuations stretched the RPV full scale development program by 18 months.

Modular Integrated Communication and Navigation System Data Link

QUESTION. RPVs will use the MICNS secure data link, which has experienced considerable cost growth. MICNS was also the SOTAS data link. Has the Army brought the MICNS cost growth problem under control?

ANSWER. Yes, the MICNS cost growth problem appears to be under control. The Army is in the process of negotiating a fixed price contract with the MICNS contractor. There has been no cost growth reported for the past year.

QUESTION. How much of the $14.8 million budget request for MICNS is for technological risk?

ANSWER. $3.5 million is budgeted for technological risk.

QUESTION. The Army is requesting $27.2 million to initiate a new program called the Anti-Tactical Missile. This program has been started to counter the long-term tactical missile threat to U.S. Army systems in Central Europe. Quite candidly, isn't this potentially a multi-billion dollar program? When will ATM concept definition be completed? After that time will we be able to make an armaments design decision? Do we know how many ATMs may be required? Do we have any estimate as to total program acquisition cost? When will such determinations be made?

ANSWER. This program is to counter both the near-term and far-term tactical missile threat. The near-term program will use the preplanned Product Improvement (P^3I) approach in phasing improvements to the field as required. This would not be a multi-billion dollar program. The far-term program starts developing the supporting technology and will attempt to use the P^3I approach. Depending on the capabilities derived from the P^3I approach to counter the threat, and the remaining defense requirements, the far-term program could be a multi-billion dollar effort. ATM system concept definition (near-term) will be completed by mid-FY 83. A preliminary armaments design decision will be made at that time. The final armaments design decision is scheduled to be made at the end of FY 84, when final Tactical Missile vulnerability models are available. The far-term capability concepts will be defined by early FY 84. The number of ATM systems required cannot be determined until concepts are defined and cost tradeoffs made. An estimate of total acquisition costs has not been made. An estimate of the number of ATM systems required and the total program acquisition cost will be completed by mid FY 84.

QUESTION. Some $33.1 million is requested in FY 1983 for the advancement of battlefield laser weapons technology. These funds support the Roadrunner and Forward Area Laser Weapons projects.

Last year only $11.1 million was requested for these projects. What new initiatives does this threefold increase in FY 1983 laser weapons funding provide for?

ANSWER. The $11.1 million in FY 82 provided for the preliminary design of the Forward Area Laser Weapon-Demonstrator (FALW-D) and the demonstrator for a Close Combat Laser Assault Weapon concept called Roadrunner.

The FY 83 request for $33.1 million is a follow-on to the FY 82 efforts. It provides for the [deleted] of the [deleted] FALW-D and for the [deleted] Roadrunner.

QUESTION. Are these projects considered high, low, or moderate risk?

ANSWER. Both the Forward Area Laser Weapon - Demonstrator (FALW-D) and the demonstrator for the Close Combat Laser Assault Weapon concept called Roadrunner are low to moderate risk efforts. Both demonstration efforts have been established to minimize the program risk. The Scope of Work for both FALW-D and Roadrunner contain directions to the contractors that the risk associated with accomplishing the requirements shall be minimized by using demonstrated technology. Minor excursions from demonstrated technology are only acceptable if proof is supplied to the government that the excursions do not impose undue risk. The contractors are required to conduct a risk assessment and clearly show that the recommended approach represents minimum risk. The contractors must identify risks which significantly affect cost and schedule and propose methods of risk reduction.

QUESTION. Don't these projects give us a means by which to demonstrate laser weapons technology and establish a technology base in a way which may have spin-off for our other laser programs?

ANSWER. Yes. There are two Program Elements that make up the Army High Energy Laser Program: 1) High Energy Laser Components, and 2) Laser Weapons Technology.

High Energy Laser Components contains the projects of the Forward Area Laser Weapon (FALW) and the Close Combat Laser Assault Weapon (CCLAW). The current efforts in these projects are the Forward Area Laser Weapon - Demonstrator (FALW-D) and the demonstration of a Close Combat Laser Assault Weapon concept called Roadrunner. These two efforts are designed to demonstrate the overall technical feasibility of laser weapons. They are also to demonstrate levels of reliability, ruggedness, availability, maintainability, and tactical utility sufficiently high that a reasonable extrapolation of engineering and technology will achieve the requirements of the FALW and CCLAW missions. These demonstration programs will also provide insights into the effectiveness of hardening US weapons systems against laser radiation.

A key issue being addressed in both demonstrators is laser weapon fire control. Both demonstrators will be required to demonstrate all required functions in the engagement timeline to include target acquisition, coarse target tracking, hand-off to a fine tracker, aimpoint selection, and kill/damage assessment. The full fire control aspect of laser weapons has not previously been demonstrated in any US high energy laser program.

In parallel with these demonstrations is the Laser Weapons Technology effort. This is the exploratory development to advance the laser weapons technology base for application to future laser weapons systems developments and to develop laser weapons systems concepts for viable Army missions. This technology base effort will ensure that the FALW, CCLAW, or other systems to be developed following the current demonstrations will contain the latest possible technologies. The major efforts in FY83 will be in the areas of: Chemical lasers, pulsed electric lasers, fire control, integrated fire control/beam control, optical components, effects and vulnerability data base, advanced laser techniques, and concept development and evaluation.

QUESTION: The Army is requesting $25.2 million for electronic warfare R&D programs. This program is geared toward improving the survivability of US missiles, munitions communications and electro-optical night vision devices against enemy electronic warfare measures. Where does this program fall on the list of Army priorities?

ANSWER: Program falls into the top 25% of Army priorities.

QUESTION: Have the recommendations for improved electronic counter-countermeasures studies in this program ever been implemented by weapons program managers?

ANSWER: Significant contributions have been made in hardening Army weapons systems and fuses against the projected electronic warfare (EW) threat based on electronic counter-countermeasures (ECCM) recommendations made to the developers. In the case of PERSHING II 44 out of 49 ECCM enhancements were accepted and implemented. Performance of the US ROLAND missile fuse has been improved through design modifications based on ECCM analyses. Basic HELLFIRE and COPPERHEAD missile seekers were redesigned and development of an electronic countermeasures (ECM) hardened TOW-2 tracker was supported by the developer. Seven ECCM recommendations were adopted for the basic STINGER and five were incorporated into the CHAPARRAL. This program continues to be a crucial link in reducing the vulnerability of US Systems to enemy EW operations.

Army Modernization

QUESTION: Where is our greatest EW vulnerability --
-- surface/surface weapons EW?
-- Air Defense Missiles vulnerability?
-- C^3 systems vulnerability/susceptibility?

ANSWER. In the realm of system threat assessment, the Soviets have the capability to target all major electronic systems operating across the electromagnetic spectrum. In deciding whether to target a system, the Soviets will generally ask two questions: Does our (Soviet) doctrine say we should employ EW against this system? Does our technology allow us to apply EW against this system. If both questions are yes, they will employ EW against the system.

Generally, it is difficult to identify the greatest threat area. The Soviets have the capability against a wide variety of EW operations and are expected to develop and use more sophisticated programs in the future to correct any apparent weaknesses. They employ land and airborne systems which many of our systems are susceptible to. Large numbers of intercept and jamming vehicles have been fielded that are a threat to both our communications and radar systems. They have highly mobile intercept and jamming equipment deployed throughout the Warsaw Pact nations that can intercept and jam radar, navigation and communication links used by allied aircraft and ground forces. They have an extensive airborne jamming capability that is a threat to our air defense systems. They intend to use their EW aircraft to confuse, degrade and disrupt our air defense systems.

[Deleted.] Also, the air defense jamming organizations have a dedicated mission to target [deleted]. Perhaps our surface-to-surface weapons are least vulnerable to threat EW actions.

[Deleted.] Our tactical communications may be particularly susceptible to jamming; however, that does not necessarily imply that our command and control networks are vulnerable to jamming. Not only must the jamming be technically effective, it must also be tactically effective. To gain the greatest benefit, jamming must occur at a critical time during a critical event and against a critical node, not an easy task. [Deleted.]

[Deleted] has yet to be even closely met and may be an indication of current Soviet perceptions on the difficulties and benefits resulting from tactical communications jamming. [Deleted.] At the strategic and operational levels, intelligence is gathered to assess enemy strengths, weaknesses, major dispositions, and intent, whereas at the operational and tactical levels, the intelligence gathered is more of a target identification and location nature. [Deleted.]

It is critical that penetrating aircraft neutralize the opposing air defense radars. The Soviets have a major capability to conduct active jamming from airborne platforms against early warning, target acquisition and terminal guidance radars. The expanding Soviet airborne jamming capability appears to be expressly intended for radar jamming applications. [Deleted.] The Soviets are directing increased emphasis on EW actions against our air defense radars in order to protect their aircraft. [Deleted.]

Night Vision and Electro-Optics

QUESTION. The Army maintains that it must be prepared to fight at night and in adverse weather conditions. Some $30.2 million is requested in FY 1983 for advanced technology development of night vision devices and electro-optics. What kinds of projects does this $30.2 million budget request support?

ANSWER. This budget request supports the following type projects:

-- Development of advanced thermal imaging technology systems for individual and crew served weapons, manportable air defense weapons, a passive infrared search/track air defense system, and viewers for combat vehicle commanders and drivers.

-- Prototype development of CO_2 laser rangefinders and multi-sensor (including millimeter wave radar) systems to enhance our combat capability in adverse visibility conditions.

-- Componentry work designed to reduce the costs of thermal imaging infrared detector arrays, and to harden television, image intensification, and thermal imaging devices against optical counter measure threats.

-- Automation applications designed to improve target servicing rates and survivability, and to allow effective use of multi-sensors.

Joint Services Small Arms Program (JSSAP)

QUESTION: One program which we don't hear too much about is the Joint Services Small Arms Program. This program is geared toward advancing the state-of-the-art in U.S. small arms technology -- those programs generally defined as guns of caliber less than 20mm to include Grenade Launchers.

How does the state-of-the-art of U.S. small arms technology compare to that of the Soviet Union?

ANSWER: The current inventory of Soviet Small Arms are considered excellent weapons which represents the end result of a well financed, coherent, development program that started back in World War II. It is an ongoing program and the weapons that will replace the ones of today are known to be well underway. The Soviets place major stress on improving the capability of small arms through a dedicated R&D program addressing evolutionary approaches to effectiveness gains for state-of-the-art application. The U.S. ended World War II with the best infantry weapons in the world. The Soviets, on the other hand, had a heterogeneous collection of weapons. Since then they have closed the gap and possess superior numbers of small arms that equal and in some instances excell the performance of our own.

QUESTION: The Joint Services Small Arms Program is relatively small in terms of R&D investment--a total of only $7.2 million is requested for JSSAP programs in FY 1983. What are the major objectives of the program, and what new weapons are being developed in the program?

ANSWER: The major objectives of the Joint Service Small Arms Program are:

A. To prevent the U.S. arsenal of small arms from becoming outdated.

B. To establish and maintain a base of technology for new generations of weapons.

C. To provide a focal point for small arms research and development within the Department of Defense.

D. To achieve positive cost benefits and significant gains in the areas of production, training, logistics, reliability, availability, maintainability, and rationalization, standardization, and interoperability.

E. To efficiently execute the Services small arms research and development program.

The current thrust of the program is toward satisfying specific interests identified to the JSSAP by the Services and Joint Chief's of Staff thru Memorandum of Agreements (MOA's), Joint Scientific and Technology Objectives (JSTO's) and other expressions of user needs such as Mission Area Analysis (MAA), Close Combat Light (CCL).

In response to such interests, the JSSAP is addressing such systems as: an Advanced Combat Rifle which offers substantial improvement in hit capability with all environment battlefield performance; a Close Assault Weapon for short range immediate incapitation for special forces/sensitive area defense/urban fighting; an Automatic Grenade Machinegun with anti-armor and anti-personnel capability for vehicle and ground roles; a submachinegun which stresses modern design and versatility; an Improved Penetrator munition for individual capability against lightly armored targets; and a low cost/versatile/high performance General Purpose Heavy Machinegun. The long term thrusts of the JSSAP relate to advancement of US Small Arms technology base from which future combat capabilities can be developed; specifically such areas as high energy/lightweight/high strength materials, non-kinetic lethality mechanisms, reduced signature effects and fire control mechanisms impervious to battlefield environments.

QUESTION: What were the conclusions reached by the Army on the 9mm handgun issue?

ANSWER: The Army, as executive agent, initiated the acquisition process on 29 June 1981 in response to the Joint Service Operational Requirement (JSOR) effective 10 June 1981. A comprehensive test program was completed on 29 January 1982 and normal source selection procedures were utilized to evaluate contractor proposals and testing results. The conclusions from this thorough evaluation process revealed that the submitted weapon samples of all offerors had substantially failed to meet the essential requirements of the JSOR as contained in the procurement solicitation. Primary areas of failure were: Reliability, operation in adverse environment, and operation in adverse climatic conditions. In accordance with the Defense Acquisition Regulations, the Army cancelled the procurement action. OSD concurred with this action.

The Army, in conjunction with the other Services, has initiated efforts to reevaluate the Joint Service Operational Requirement and should conclude this effort in June 1982. Afterwards a revised acquisition plan will be designed to obtain weapons which fully meet the military service requirements for a standardized 9mm pistol.

QUESTION: What potential improvements are being considered for the M16 rifle?

ANSWER: The Army has no current program to improve the M16A1 rifle. A test, for the Marine Corps, conducted by the Joint Service Small Arms Program (JSSAP) is evaluating an improved M16A1 with increased range, burst limitor, adjustable rear sight, heavier barrel, muzzle compensator, and sturdier handguards and buttstock. For the near-term, the Army will retain the M16A1 and evaluate the cost effectiveness of the improvements tested for the Marine Corps. For the long-term, the Army continues to support exploratory development efforts to field a revolutionary/significantly improved combat rifle.

QUESTION: How does the M16 compare with the Soviet AK-74 assault rifle?

ANSWER: The Soviet AK74 assault rifle and M16A1 rifle are excellent weapons which compare favorably. The shorter, heavier AK74 has a lower muzzle energy, lower maximum range, and essentially the same maximum effective range as the M16A1. The M16A1 is considered superior because of its accuracy and lighter weight. The AK74 5.45mm round and M16A1 5.56mm are also comparable in penetration capability. The incapacitation effects of the two rounds appear to be approximately the same; however, additional studies are ongoing in this area.

QUESTIONS SUBMITTED BY SENATOR SCHMITT

Reprograming Money to VIPER

QUESTION: Has the US Army reprogrammed money into VIPER's facilitization?

a. Does it plan to do so?
b. When?
c. How much?

ANSWER: The Army internally reprogramed $11M in FY 82 funds for VIPER facilitization. In light of the Congressionally directed LAW evaluation, additional facilitization planned for FY 83 is being reevaluated.

Second Source for VIPER

QUESTION: Is the US Army considering a second source for VIPER's procurement to reduce its acquisition cost?

a. If not, why not?

ANSWER: The current Acquisition Plan for VIPER is sole source. However, if VIPER is procured after the Congressionally directed LAW evaluation, a second source will be considered as a means to lower the cost. Second source facilitization in time and money, as well as the remaining quantity of LAW's to be procured would be considered.

Alternatives to VIPER

QUESTION: What alternatives to VIPER are available by 1984?

ANSWER: Numerous manufacturer's claims exist with regard to performance and production capability of possible alternatives to VIPER. The congressionally directed LAW evaluation is designed to verify contractors performance claims and give both the USMC and US Army more credible information with regard to production readiness. Some of the candidate systems that may respond to the Army and Marine Corps solicitation to provide systems for test are: Norwegian Improved LAW (M72-750), Armbrust,Apilas, AT-4, and UK LAW. Screening tests of LAW evaluation candidates will be completed by July 1983. If viable candidates exist appropriate DT/OT II testing would be conducted. Under a reasonable DT/OT delivery schedule and testing, initial production would occur probably in FY 85, but no earlier than mid-FY 84.

APILAS Attache report

QUESTION: The US. Defense Attache in Paris witnessed a demonstration firing of the APILAS and described it as "a very simple, relatively light, inexpensive and incredibly performant weapon capable of killing all modern tanks." Does this perception square with what the Army learned from its demonstration firing at the Aberdeen Proving Ground 6 months earlier?

A. If not, where is the attache's report at fault?

ANSWER: During demonstration firings at Aberdeen Proving Ground, the APILAS showed very good armor penetration; however it is heavy (24.5 lbs) in relation to the Army's requirement of 6-7 lbs and at $2500 per weapon is more costly than VIPER.

Foreign Government testing of Anti-Tank Weapon

QUESTION: Are foreign government's testing of their anti-tanks weapons being accepted for our evaluation of alternatives.

ANSWER: Foreign test data will be used where possible.

VIPER'S Cost Reduction Effort

QUESTION: Discuss the realism of the VIPER's cost reduction effort. The reduction from the current 1300 is from an artifically high number and a dramatic reduction.

ANSWER: The estimated savings from the VIPER cost reduction effort are considered to be realistic. Most of the cost reduction items not only result in a lower material cost but also a substantial savings in labor. This effort involves design changes/simplification in 7 major areas as follows:

- Launch tube
- Borerider
- Warhead body
- Half fairing
- Rocket Motor Harness
- Fire circuit
- Fire mechanism/sight assemblies

Additional cost reduction is being achieved through production learning and second/alternate sources at the subcontractor level.

Inflation Factor in VIPER's Cost

QUESTION: Ms. Hoeber ascribes VIPER's cost to an inflation figure of 33% annually. The accountant from MICOM ascribes 12% to inflation annually. Can these be resolved?

ANSWER: Ms. Hoeber did not ascribe VIPER's cost to inflation of 33% annually. That figure was deduced by Frank Greve in his article on VIPER. Using $78 as a base and compounding it annually at 33% is a very simplistic application of inflation. The base may be $78 the first year, but in succeeding years should be corrected upwards to account for engineering changes, adherence to new cost accounting standards, cost of Government-furnished material, and other fact of life changes. The correct figure is

$184 growth for economic changes (inflation, conformance to cost standards, increases in material and labor) in going from the $78 expressed in FY 76 dollars to the current estimate of unit cost. Averaged over the FY 82-87 period, this estimate is $761.

VIPER Cost vs. LAW Cost

QUESTION: Can VIPER be produced for about two times the cost of LAW as Dr. Delauer directed? If not, are you disregarding the principle in his memorandum for the sentence inserted later?

ANSWER: OSD(USDRE) recommended that a cost goal for VIPER be twice that of the current LAW. The Army has notified OSD that we do not expect to get the cost below $750-800 (FY 81$) per round. The Army is not "disregarding the principle" in Dr. Delauer's memorandum. We will continue to attempt to reduce the VIPER cost as low as possible.

Army's Evaluation Validity

QUESTION: Can the Army's evaluation be fair? This question is based on the Army's unwillingness in February to test a weapon weighing more than 12 pounds or more than 30 inches long (presumably disqualifying the high performance ARMBRUST at 13 pounds and 32 inches) and delaying the program improvement money for M72-750 (presumably disqualifying this competitor because it would not be available for testing if the development starts late).

ANSWER: The A/S Raufoss proposal for improving the M72 LAW would increase armor penetration and speed of flight. If these improvements are achieved they could make the Norwegian system attractive to the Army as a possible supplement or replacement for the VIPER. The Army did not delay the product improvement money for the M72-750. In light of Congressional direction to test all available anti-armor systems, the Army believes funding the A/S Raufoss proposal would be unfair to other competitors; however, it is expected A/S Raufoss will enter an improved LAW as a candidate for these tests. The evaluation will be fair in the sense that the Army and Marine Corps intend to test all systems up to 20 lbs in weight. In addition, in fairness to the competitors, it will be made clear to them that the Army's requirement in this area is still the ILAW ROC and that systems will ultimately be evaluated in their capability to meet these requirements.

VIPER's Accuracy

QUESTION: Is VIPER as accurate today as it was as a prototype? It is reported to be 20% less accurate.

ANSWER: VIPER is significantly more accurate today than it was as a prototype. Accuracy attained in recent cost reduction system integration test was .87 milli radians (MR) in azimuth and .42MR in elevation. This compares to accuracy demonstrated in prototype qualification tests of 1.07MR in azimuth and 1.44MR in elevation.

VIPER Reliability Requirement

QUESTION: In testing, does VIPER meet the 97% requirement?

ANSWER: The ROC does not specify a numerical requirement; i.e., there is neither a Best Operational Capability (BOC) nor a Minimum Acceptable Value (MAV) requirement. The ROC does specify a numerical single-shot kill probability (SSKP) requirement, and identifies reliability as an element of SSKP. The VIPER System Specification (MIS 23500) specifies a reliability requirement of 0.97. The Project Manager established a set of reliability thresholds of 0.90 for the development and first production buy phases, 0.94 for the 2nd production buy and 0.97 for the third production buy. The reliability values demonstrated thus far in testing have been 0.92 for DT-II and 0.95 for OT-II.

VIPER Capability

QUESTION: Capability

a. What is the unit cost of VIPER?
b. Does it meet the requirement?
c. What was the requirement and when was it established?
d. When will VIPER be fielded in quantity?
e. If we buy VIPER, it will defeat the 1975 threat but we will not get it before 1985. Will VIPER defeat the 1985 threat?

ANSWER:

a. Unit Cost. The average recurring cost over the FY82-87 period assuming no changes to the current program is $959 per round in FY83$ ($761 in FY81$).

b. Requirement. The VIPER meets the requirement in all but three areas:

1. Weight. 9 pounds was accepted when 7 pounds was required.

2. SSKP. Required single shot kill probability is [deleted] against the medium main battle tank threat. Army [deleted] against the T-55, and (d) against the T-62.

3. Submersion. System must function after submersion in 3 feet of water for 2 hours. VIPER does pass this test in its shipping barrier bag.

c. Required Operational Capability. The statement of the Army's requirement is the ILAW ROC dated 5 June 1975.

d. Fielding. The first quantity buy is the FY82 approved program of 60000 VIPER rounds. FY82 deliveries will begin in March 1983. Initial Operational Capability(IOC) is scheduled for June 1983.

e. 1985 Threat. The future threat main battle tank is expected to have greater armor protection than currently fielded threat tanks. VIPER is intended to be used against the sides, rear, and top of tanks. From these aspects, the future threat tank is vulnerable to VIPER. Although VIPER may have limited effectiveness against tank frontal armor, it is devastating against other light armored vehicles and materiel targets which will constitute a large portion of the threat expected to be faced in 1985.

VIPER's Shelf Life

QUESTION: Shelf Life

a. How long is VIPER shelf life?

b. VIPER is shipped to the troops in logistical packing. Once the troops unwrap VIPER, how long will it be functional?

ANSWER: Shelf life for the VIPER Tactical Round is designed to be five years; however, random samples will be fired at the end of five years. If these rounds are successful then an extension will be granted on a yearly basis. Once soldiers break the seal on the unit pack, however, the shelf life is reduced to 90 days.

VIPER Production

QUESTION: Is VIPER ready for production?

ANSWER: Yes, in fact, VIPER is in production. Development problems with duds, excessive noise, launch tube failures, and separation of firing machanisms have all been solved and fixes tested. The decision to proceed to production was made in August 1981 after a thorough review of production readiness.

Promises of Funding Improvements

QUESTION: Have you made any promises of funding improvements to producers or supporters of VIPER alternative systems?

ANSWER: No promises have been made to producers or supporters of alternatives to VIPER, however, the Army has encouraged contractors to enter competitors in the LAW evaluation.

QUESTIONS SUBMITTED BY SENATOR ANDREWS

QUESTION. According to the justification book provided by the DOD for the 1982 Supplemental request, the Army will absorb $37.770 million of the civilian pay raise out of already appropriated FY 1982 RDT&E funds. What specific program or programs did this money come from and how did the excess occur?
ANSWER. The $37.770 million for the 1982 civilian pay raise will be absorbed within all programs to which RDTE,A personnel are assigned. Decision not to request funds for the RDTE,A civilian pay raise in the FY 1982 supplemental was made by Office of Secretary of Defense subsequent to submission of the RDTE,A budget request. Programs affected will reduce other efforts (e.g., test facility instrumentation and contractual laboratory efforts) or below threshold reprograming from R&D projects will be accomplished where total available funds in a specific area are inadequate (e.g., headquarters).

QUESTION: The Congress put $50 million in the FY82 budget specifically for the procurement of new equipment for the National Guard. How much of this has been obligated to contract?
ANSWER: The actual contract awards thru the customer order system with the US Army Materiel Development and Readiness Command (DARCOM) have or will be made according to the following schedule ($ in million):

Item	Program	Contract Amount	Award Date
Howitzer, M109A2	$20.7	$16.3	Apr 82
		2.0	June 82
		2.4	Sep 82
Carrier, Cmd Post M577A2	4.4	3.6	June 82
		.6	Aug 82
		.2	Sep 82
Carrier, 81mm Mortar, M125A2	6.9	5.6	June 82
		.6	Aug 82
		.7	Sep 82
Armored Vehicle Launch Bridge (MOD)	18.0	3.6	Sep 82
		14.4	Sep 83

The Armored Vehicle Launch Bridge (ALVB) is scheduled for delivery in FY85. The schedule to obligate to contract is being driven by the development of a technical data package (TDP) for converting the M60A2 chassis AVLB to the M60A1 chassis AVLB. This was a deliberate decision by the Army to take advantage of existing M60A2 assets and minimize cost. The other three hardware items are scheduled for delivery in FY84.

QUESTION: Six of the C-12D airplanes are estimated to cost $11.0 million. Six of the RC-12D airplanes are estimated to cost $14.0 million. Would you explain, for the record, what the additional $30.0 million is for?
ANSWER: The Fiscal Year 1983 Improved GUARDRAIL V request is $41.2 million. The following represents the total breakout of expenditures for Fiscal Year 1983:

Aircraft (C-12D)	$11.000M
Aircraft Mod to RC-12D	5.298M
Airborne Relay Facility	8.340M
Airborne Data Link	3.120M
Data Link Ground Station	4.505M
Nonrecurring Costs	6.190M
Airborne Ground Equip Van	1.961M
Publications/Tech Data	.464M
Contract Tech Services	.322M
	$41.200M

QUESTION: Is there any portion of your request for $482.5 million in spares and spare parts for the AH-64? If so, how much?

ANSWER: Yes, $88.2 million is requested for initial provisioning spares for the AH-64.

QUESTION: The total requirement for Spares and Spare Parts has doubled in the aircraft area since last year ($223.3 million in FY 82 to $482.5 million in FY 83). How much of this increase is for inflation and how much is program growth?

ANSWER: Inflation accounts for $9.6 million of the increase. The remainder, $249.6 million, breaks out as follows:

Build up of aviation war reserves (less UH-60) accelerated to provide [deleted] ($50 million).

Initial procurement of war reserves for the UH-60 ($44.9 million).

Transition of UH-60 spares funding from initial to replenishment and increase in UH-60 inventory ($55.0 million).

Increase in initial spares requirements for all other aircraft ($1.5 million).

Unfunded replenishment spares requirements from Fiscal Year 1982 carried forward to Fiscal Year 1983 ($26.8 million).

Increased flying hour program ($71.4 million, from 1.425 to 1.776 million hours).

Viper Anti-tank Missile

QUESTION: Why does the Army persist with the Viper anti-tank missile program when studies (such as a recent classified GAO report) have shown that the weapon will be ineffective against modern Soviet armored vehicles?

-the weapon is too light and cannot penetrate the front armor of Soviet tanks. Even side and rear shots have little chance of success, according to GAO's land warfare experts.

ANSWER: The Army is procuring VIPER because it is the best anti-tank weapon in its weight class in the world today. It is a marked improvement over the M72 LAW in both range and probability of kill. It is lightweight, easy to handle and use, and can be provided to any soldier (infantryman, cook, mechanic) for close-in protection against enemy armor. VIPER does have limited effectiveness against frontal armor on future threat main battle tanks. No lightweight weapon can penetrate tank frontal armor. VIPER is intended to be used against the sides, rear, and top of tanks. This use is, and has been, Army doctrine. Against other lightweight armored targets, the weapon is devastating. Other countries are developing "light" anti-tank weapons of similar range that reportedly offer greater lethality. We will evaluate and test these weapons to determine if they are viable alternativesto VIPER. The schedule for such tests will put the Army in the position of being able to commit FY84 funds to a lower cost alternative to VIPER should test results and analyses warrant. In the interim, the Army believes it mandatory to procure VIPER to replenish the dramatically depleted war reserve stocks of light antiarmor weapons, since procurements have been postponed in anticipation of VIPER fielding.

QUESTION: The Army's modernization program will put 14 major new systems into the field in the next decade, many of them of a high degree of sophistication and complexity. What steps are being taken to improve the level of training and the quality of manpower for operating and maintaining systems?

ANSWER: To provide trained soldiers for our new sophisticated and complex equipment, the New Equipment Training (NET) concept was recently expanded and brought under the Force Modernization Training (FMT) umbrella. The expanded concept provides for training active and reserve component individuals, crews and units on how to operate, maintain and/or shoot and employ their new equipment. This is a significant increase in the scope of new equipment training which will provide better trained individuals, crews and units. Also, under the expanded concept commanders, staffs and junior leaders will be trained to tactically employ their new equipment.

Many improvements have been made in institutional training. Basic Training and the Common Skills portion of One Station Unit Training have been expanded by one week. The additional time allows the Army to provide more emphasis in the areas of motivation, discipline, physical fitness and combat skill training. At the conclusion of basic training the combat support and combat service support soldiers attend occupation/system specific training. As new systems come on line, courses are changed or added to prepare soldiers to perform the critical tasks associated with the introduction of new equipment.

Force modernization training for NCOs is another improvement. The Non Commissioned Officer Education System (NCOES) includes training on new equipment/systems. It is designed to provide better trained, more technically competent NCOs to units. NCOs will also be trained using transition training, contract training and mobile training teams. The purpose is to insure that NCOs have been trained on new equipment prior to arriving in units.

Package training is conducted for selected units receiving new equipment. Units (e.g. companies or battalions) are formed at CONUS school installations with soldiers who have been trained in individual skills. The units are trained to attain an operationally ready state and either deployed overseas or to a CONUS post as a mission ready unit. Examples of this training include Patriot, Multiple Launch Rocket System and DIVAD.

The Officer Basic Courses have integrated force modernization into their instuctional programs. The programs present the equipment, tactics and doctrine that new lieutenants can expect to find upon arriving at their initial unit of assignment. The Officer Advance Course builds upon the Officer Basic Course and adds the tactics and doctrine instruction that captains would be expected to use in their assignments. At the major and lieutenant colonel level the Command and General Staff College is putting increased emphasis on Army management systems which focus on force modernization and the management challenges it presents to every level of the chain of command.

The new equipment training teams are being strengthened and will include post fielding follow-up.

Pre-command courses have added to their curriculum blocks of instruction on force modernization which provide soon to be battalion and brigade commanders the background and current status on new systems and the modernization process.

In terms of providing a firm base for building a competent force for the 80's, the Army goal is to achieve a minimum of 55 percent Category I-IIIA male accessions each year, better than 75 percent male high school graduates and 100 percent female graduates, while limiting Category IV accessions to less than 20 percent annually. Retention standards have been raised through streamlining the commander's ability to separate marginal performers early in their term of service, by raising criteria for reenlistment, and by judicious application of Selective Reenlistment Bonuses.

QUESTION. Do modern U.S. armored vehicles have built-in protection against chemical agents? If not, does this not give a major battlefield advantage to the Soviets, whose tanks and armored personnel carriers have chemical warfare protection?

ANSWER. Currently, most crews of U.S. Army tanks and some other armored vehicles are protected against chemical agents by use of a ventilated facepiece system and chemical protective overgarments. The ventilated facepiece system provides purified, filtered air from a common filter unit, via hoses, to masks worn by the crew members. This system provides considerable reduction in breathing resistance that is normally associated with the wearing of a conventional type of field protective mask. It also allows for open hatch type operations, and is designed to provide the crew individual protection in the event of emergency evacuation of the vehicle. The primary disadvantage of this system is the requirement to remain in the burdensome protective clothing.

The U.S. is moving to a hybrid collective protection system for selected combat vehicles which will combine the ventilated facepiece system with positive overpressure. Under this concept, while the hatches are closed, a large enough volume of purified air will be delivered to the crew compartment to maintain positive pressure. This will cause an outward flow of air at all sources of leakage, thereby preventing influx of contamination. Under these conditions, the crew can elect to reduce their level of individual protection, thereby reducing degradation of performance. However, individual protection is still available in the event open hatch operations are required, the positive pressure system is inoperable, or the crew members are required to perform operations outside of the vehicle.

The Soviets have opted for the positive pressure system of collective protection. This decision was probably based on their doctrine of operating in a buttoned up, hatch closed mode. Under these conditions, the overpressure system has a clear advantage over the ventilated facepiece system where their crews would have to be wearing their more burdensome protective gear and incur the heat of both the clothing and the closed compartment. Clearly, each side is designing collective protection to best fit its operational doctrine.

COMPETITIVE PROCUREMENT FOR M2/M3

QUESTION. What is the current status of attempts to secure competitive procurement for the M2/M3 Bradley vehicle? Analysis of second source procurement was due to be completed in June 1982 (we are almost there now).

ANSWER. In June 1981, the Army awarded production analysis contracts to three potential second production source contractors. The results of these contracts were received in March 1982. The Army is in the process of completing the second source evaluation and is scheduled to report its decision to Congress by 30 June 1982.

M1 ABRAMS TANK

QUESTION: A while back, track life on the peacetime rubber coated tracks on the M1 tank was about half of the stated 2000 mile requirement. What is the experienced life of the steel tracks in a simulated combat situation, now that the tank has been fielded?

- The rubber coating is intended only to protect road surfaces, and when it wears down, it is replaced. The tank was also having problems with the steel tracks as well.

ANSWER: The M1 track has not experienced problems with the steel part of the track. The problems occur with the rubber integral pads.

The heavier weight and increased speed and acceleration of the M1 have placed a degree of stress on the track not experienced by previous tanks. This plus the need to go to a lighter, non-replaceable pad track for the M1 have limited track durability within the constraints of current technology. The Army has initiated near and far term programs to improve tank track durability. This will take time and is dependent on technological advances, primarily in the area of rubber compounding, rather than use of existing materiels and design. There is no data on the life of the M1 track once the rubber has worn down to the steel. It is safe to say that the track would last for sometime, but even in combat you would replace the worn track since much of the tanks movement would be on paved roads.

QUESTION: The requirement for Ground Support Equipment (Aircraft) went from $54.6 million last year to over $90 million this year. What is this increase?

ANSWER: The increase in the Fiscal Year 1983 budget request in comparison to the Fiscal Year 1982 budget request breaks out as follows:

	($ in millions) Fiscal Year 1982	Fiscal Year 1983
Tools and Shop Sets	6.2	4.0
Aviation Ground Support Equip	6.1	5.3
AH-1 Flight and Weapons Simulator	31.7	41.6
Items Less than $900,000	5.4	2.4
Airfield Support Equipment	5.2	.3

CH-47 Flight Simulator	0	14.4
Aviation Training Equipment	0	15.9
9th Infantry Division High Technology Test Bed (Avionics and Aircraft Survivability Equipment)	0	6.7
TOTAL	54.6	90.6

QUESTION. In the requirement for funding of the many RDT&E projects, does the Army have a critical review of the recurring need for each individual project?
ANSWER. In the preparation of the FY 83 Budget, each individual RDTE project was subjected to a total of five separate critical reviews, during the period of July 1980 through January 1982. Each of these reviews covered the recurring need for the project, the relative priority of the project, and the funding requirements for the project.

Note for record. The critical reviews were:

Summer Review	Jul-Aug 80
MARDIS Preparation	Sep-Oct 80
POM Building	Jan-Jun 81
POM to Budget Cycle (PDM)	Jun-Sep 81
OSD/OMB Review (PBD)	Oct 81-Jan 82

QUESTIONS SUBMITTED BY SENATOR STENNIS

Effect of Deferral of Program Supplemental

QUESTION: General Sheridan, as we move later and later in the fiscal year, it would appear that many of the items requested in the Program Supplemental for FY 1982 may be deferred to consideration with the FY 1983 Bill. Just what effect would this have on the items in your request?

ANSWER: The FY 1982 Program Supplemental contained a request for $126 million in the Weapons and Tracked Combat Vehicles Appropriation and $20 million in the Other Procurement Appropriation. The $126 million would be obligated in FY 1982. The impact of not receiving the $126 million will cause about a year's delay in the Army's development of a surge capability that would allow for an increase in monthly production by a maximum of 30 tanks per month, or a total of 180 tanks. This production increase would begin about 6 months after a decision to surge is made, and it would take about 5 months to reach the additional 30 tanks a month surge rate. Funds requested in the Other Procurement, Army appropriation ($20 million) are for a classified project which my staff will discuss with you at your request.

Reserve Forces Equipment Shortages

QUESTION: Your statement mentions the reductions of shortages of equipment, both in the active and reserve forces, as being the prime need to assist in near-term readiness. What dollar magnitude are all speaking of?

ANSWER: The dollar magnitude in FY 83 dollars of our measurable shortfall at the end of the FY 83 funded delivery period is $26 billion. This funding will procure necessary non-modernization equipment required to complete the fill of active Army, Army National Guard and US Army Reserve units, fill (d) sets of POMCUS equipment in Europe, and obtain (d) days of war reserves.

Military Compensation vs Modernization

QUESTION: You mentioned the Soviets out investing and out producing us by a two-to-one margin. This is true, however, the cost of our military manpower is so much more expensive than that of the Soviet Union. Just what would you recommend, continued increases in military compensation or a slower pace in our modernization program?

ANSWER: The solution to this problem is not either/or but rather the attainment of a balance between force modernization and the appropriate force structure needed to support these modernization efforts. The lead time required to field a new weapon system dictates that we must continue our investment program and, if necessary, defer desired increases to force structure. We must, however, program needed manpower assets to support future equipment demand with sufficient lead time to acquire, train and field the soldiers concurrent with the fielding of planned modernization actions. Our ability to expand the force to meet future requirements is directly correlated to retaining high quality soldiers and attracting new personnel. Adequate compensation remains a key to our success in this objective.

Army Force Modernization

QUESTION: The Soviets have a different philosophy in their modernization efforts. I believe it is more evolutionary as opposed to revolutionary, which is our way of doing business. The latter is often more costly. Could I have your comments on the difference between the two philosophies?

ANSWER: Modernization philosophy is primarily dictated by the postulated threat against which the equipment will be employed; the rate of technological advances; and changes in tactical doctrine. Major changes in any of these factors may result in the use of revolutionary approach; conversely, minor changes result in evolutionary modernization.

The evolutionary approach is preferred since the development time is shorter, overall costs of change are less, and fielding impacts are less severe. From about 1965 to the present, the Soviets were able to employ this method since the U.S. Army was not actively modernizing its force. They concentrated their efforts on eliminating the quality gap which existed since World War II.

To counter these advances by the Soviets and to exploit the technological advances since about 1965, the army has used the revolutionary approach in the development of many major systems. We have also used evolutionary development in others whenever possible. The purpose is to provide the soldiers equipment which will allow him to fight, survive, and win in the next war. Since we have no control over the rate of Soviet modernization efforts, we must modernize to maintain qualitative parity as a minimum and superiority where possible.

QUESTION: Would you comment on the priority of the Division Air Defense (DIVAD) gun system relative to other Army major weapon systems?

ANSWER: The System is urgently required to counter an increased threat which includes the pop-up attack helicopter threat. The System fills a void between programmed air defense family and an expanded air threat poised against our forward deployed forces. DIVAD gun is right behind the PATRIOT missile system in the Air Defense Mission Area priorities. It is a key contributor to the combat power of the maneuver forces in fighting the Air/Land Battle 2000 and is thus included in the top 20% of Army systems.

QUESTION. How many VULCAN guns and Chaparral systems will be phased out of the active divisions, and how will the replaced systems be utilized?

ANSWER. The Army plans to equip 11 active divisions and 3 non-divisional units with DIVAD Guns. A total of 264 VULCANs will be removed from the active divisions. No Chaparral units will be removed from the force as a result of fielding DIVAD. An additional 48 VULCANs will be removed from the active force as a result of placing DIVAD in non-divisional units. The total of 312 VULCANs will be refurbished and issued to the National Guard.

QUESTION. The testing schedule of DIVAD was greatly accelerated. Would you comment on the current assessment of DIVAD's supportability?

ANSWER. The DIVAD Gun is expected to be fully supportable when fielded. This assessment is based on the detailed support plans which have been developed and the contractor's total system responsibility which is contractually required. This contract includes system support requirements. We are fully aware of the risks involved and are concentrating our efforts to insure this aspect of the program receives management's best efforts.

QUESTION. The DIVAD doctrine calls for it to move continually in an integrated formation of armor and mechanized infantry. When does the Army plan to test DIVAD's mobility over typical battlefield terrain with the M-1 tank?

ANSWER. No current planning will place M-1s and DIVAD Guns together in an operational range test. The M-1 and M-60 vehicle, which has almost identical mobility characteristics to the DIVAD Gun, have been tested together and this provides adequate data to support deployment planning. Note that the M48A5 tank and the M-60 tank have the same power train, and nearly identical suspension components. DIVAD Gun systems will operate with M-1s immediately after the first DIVAD Gun units are formed.

QUESTION. Since the M-1 is significantly more mobile in terms of acceleration, slope speed and cross-country and maximum speeds, what potential constraints will be placed on its operation if depending on the DIVAD for protection?

ANSWER. The Army has always recognized that the DIVAD could not run as fast as the M-1 in a test of speed. However, the DIVAD tactical and doctrinal planning does not call for this type of manuever. Typical field manuevers will involve leapfrogging and short runs of speed and agility intertwined with periods of slower movement or stopping. The DIVAD will be able to provide excellent air defense coverage for these operations.

QUESTION. Would you comment on how the maintenance concept for DIVAD differs from other ground weapons systems such as M-1 tank?

ANSWER. There is no difference per se. Conventional 4 level maintenance is planned. The difference is in details applicable to this program.

R&D Procurement Reprograming Thresholds

QUESTION: You mention raising the reprograming thresholds for both R&D and Procurement programs. We gave the department some relief in the FY 1982 act. What would be your recommendation at this time?

ANSWER: The Army appreciates the threshold relief the Congress provided during the FY 1982 enactment process. We are operating under these new thresholds, but do not yet have sufficient experience to make a complete judgment. Therefore, I recommend no change at this time.

QUESTION: The Army has been working for some period on a Single Channel Ground and Airborne Radio System (SINCGARS) to provide anti-jam capability on the battlefield. Are you satisfied that this system will have the interoperability with current NATO and allied systems as well as future command and control data systems?

ANSWER: SINCGARS is compatable with all known existing and future NATO radios in operating modes except the anti-jam modes. The interoperability of SINCGARS in the anti-jam mode with NATO radios is being addressed through three means: (a) A NATO Tri-Service Group on Communications Electronics equipment (TSGCEE), sub-group 2, (b) An MOU with Belgium, Canada, Italy, the Netherlands and the US, entitled "Participation in Electronic Counter-Countermeasures (ECCM) of the Interface Control Working Group (ICWG) and the Test Interface Working Group (TIWG) of the United States SINCGARS-V, and (c) A separate bi-lateral MOU between the US and the German Federal Ministry of Defense (FMOD). Additionally, the Director, Command, Control and Communications, Office of the Joint Chiefs of Staff is coordinating these efforts to insure the anti-jam operating modes of the SINCGARS radio becomes the standard for all US Services as well as for NATO.

QUESTION: How does the proposed system rate with your estimates of future improvements in the capability of Soviet Electronics Warfare?

ANSWER: SINCGARS has the capability to operate effectively on the current and future battlefield. If the Soviets develop an unexpected capability for the future battlefield, technology exists to modify SINCGARS to have the ability to operate effectively. Adding an anti-jam capability now to meet a Soviet capability beyond the current and future threat would not be cost effective and further delay the fielding of this urgently needed communications system.

M1 ABRAMS TANK

QUESTION: The General Accounting Office has recommended that it would not be wise to increase the M-1 production rate above the current level of 30 per month until the turbine engine power train meets the durability requirement. What are your thoughts concerning this recommendation?

ANSWER: The Army's confidence that M1 power-train durability will meet and eventually exceed the requirement (.5 probability of going 4000 miles without replacement of any of the three components--engine, transmission, final drive) was supported by the final DT/OT III assessed value which increased from .37 to .48. The Army and independent panel of industrial experts believe that with the March 1982 production tanks, which have power train improvements, the durability should exceed the goal. To verify this, a special power-train durability demonstration will be conducted with five current production M1's. The Army feels that there never was a case, even at the .37 durability level, to hold up M1 production. Power-train durability is primarily an operations and support cost issue and has not prevented the M1 from exceeding its reliability requirements. The M1 is urgently needed in the field now to help offset the great Soviet armor numerical advantage and the new Soviet T-64 and T-72 which are now being rapidly fielded.

Remotely Piloted Vehicles (RPV)

QUESTION. DoD has identified a critical need for development and procurement of an Army Remotely Piloted Vehicle (RPV) program, yet the timeframe for RPV development is greater than the development time period for a number of other sophisticated, highly complex weapon systems. Why is this?

ANSWER. RPV development started in 1974 and will be completed in 1985. Total development time is 11 years. One year was lost between completion of the technology demonstrator program and start of full scale development while requirements and specifications were finalized. Full scale development started in 1979 and was originally scheduled to be completed in 1983. However, technical challenge of miniaturization of the data link and mission payload was greater than anticipated and caused a 9-15 month delay in the full scale development program. Also, budget cuts in the fall of 1982 contributed to an 18 month program stretch.

QUESTION. What will the Army use in the interim to perform RPV missions of target acquisition, artillery fire adjustment, target designation for precision guided munitions, target attack assessment, and reconnaissance?

ANSWER. There are a number of systems with limited potential to perform these missions i.e., forward observers, ground laser designators, combat patrols, etc. However, these systems are not normally used at ranges greater than 3-5 kilometers from the Forward Line of Troops and have limited beyond line of sight capability. The Army will not have a capability to perform these missions on a day-to-day basis at ranges greater than 5 kilometers from the line of contact until RPV is fielded.

QUESTION. Where would you put the RPV on the Army's Priority Acquisition List?

ANSWER. RPV is in the top 20% of the Army's Fiscal Year 1983 Priority Acquisition List.

Modular Integrated Communications and Navigation System (MICNS)

QUESTION. The Modular Integrated Communication and Navigation System (MICNS) is a critical RPV subsystem to provide anti-jam communication between the air vehicle and ground station. Do you continue to believe this program is technically achievable in light of the technical problems which MICNS has experienced?

ANSWER. Yes. In May 1981 the Army had an independent team conduct a technical review of MICNS and determined that the program was technically achievable.

QUESTION. Can this system be delivered to meet the RPV testing schedule?

ANSWER. Yes. The current MICNS delivery schedule supports the RPV program.

QUESTION. If the system is technically achievable and can be delivered on schedule, then why should the alternate data link be continued?

ANSWER. The Army reviewed the alternate data link program in April 1982 and decided to continue development as a technology effort for possible future development. This technology is behind the MICNS technology in maturing, but has the potential for increased anti-jam capability and investigations will be conducted to determine the extent of the increased anti-jam capability.

QUESTION: The Fiscal Year 1982 Appropriation Act included funds for initial procurement of the AH-64 Attack Helicopter. What, in your opinion, are the primary areas of risk in terms of production readiness?

ANSWER: The Army had previously identified areas of risk during its normal Production Readiness Review process. At that time, the only areas of risk identified were construction of the Mesa facility and manpower availability at Mesa and Culver City. At present, all risk areas are assessed as low. Construction of the Mesa facility is on schedule, and favorable responses to manpower surveys indicate that a labor pool is available for hire both at Mesa and Culver City.

QUESTION: Do you believe the new assembly plant for the AH-64 in Mesa, Arizona, can be constructed within the overall production schedule?

ANSWER: Construction at Mesa is on schedule and all structural steel is in place. Since the construction of this assembly facility is a simple and routine matter for the highly experienced construction contractor, the Army has every confidence that the building will be constructed on schedule.

QUESTION: What about the acquisition of an adequate labor force? Can the critical skills be acquired with the current production schedule?

ANSWER: Recent advertisement for engineering and manufacturing skills and open houses in Mesa and Culver City received excellent responses. Critical skills can be acquired as necessary to support the AH-64 production schedule.

QUESTION: The prime armament on the AH-64 attack helicopter is the laser HELLFIRE missile. This missile has demonstrated good reliability and accuracy, but a number of questions remain concerning its degradation by inclement weather and its susceptibility to electro-optical countermeasures. With this in mind, would you discuss the net advantages of the HELLFIRE over the Improved TOW II missile?

ANSWER: As with any electro-optic system, anything that will block the emitter or the reflected energy will essentially defeat the system. Partial obscuration, such as rain, will have varying affects according to density. Extensive captive flight tests, simulation and actual flight tests have shown the semi-active laser system to have good performance in obscurants and a high probability of successful engagement, if the "rule-of-thumb" is followed.

Rule-of-Thumb

- Target Acquisition Designation Sight (TADS) Day Television (TV)/Day View Optics (DVO), Ground Laser Locator Designator (GLLD) day sight: Launch if you can recognize the target.
- TADS Forward Looking Infrared (FLIR), GLLD night sight: Launch if you get consistent laser ranging.

Humidity, other than rain and fog, has a negligible affect on the HELLFIRE system performance.

Electro-Optical (EO) counter-countermeasures (CCM) are planned for inclusion in production and for additional research. At this time [deleted].

Current funded CCM for HELLFIRE:

[Deleted.]

[Deleted.]

Planned, but unfunded EO CCM (technology in-hand, but not applied):

[Deleted.]

[Deleted.]

In comparing the AH-64/HELLFIRE to the COBRA (equipped with FLIR Augmented COBRA TOW Sight)/TOW 2, the following advantages to HELLFIRE stand out:

1. The TOW 2 on COBRA is limited by what targets can be visually detected and then tracked through the day/night sight. HELLFIRE has the additional capabilites of television and FLIR inherent to the TADS in the AH-64, as well as, remotely located designators such as Ground Laser Locator Designator, Aeroscouts, and Remotely Piloted Vehicles, which facilitate additional tactics.

2. The TOW 2 is limited to line of sight targets at a maximum of 3750 meters. The HELLFIRE is capable of shooting indirect fire past [deleted] without the launching aircraft ever seeing the target.

3. COBRA can fire TOW 2 with very low cloud ceilings. [Deleted.]

4. TOW 2 has one mode of engagement: single shot, direct fire. HELLFIRE can be direct or indirect fire to overcome weather and target acquisition problems, and it can fire multiple missiles per engagement.

5. HELLFIRE with its modular design has growth potential in the areas of improved seekers, warheads, motor, and guidance systems as technology and the threat advance.

A characteristics comparison is shown below:

	HELLFIRE	TOW 2
- Guidance	Laser semi-active	Wire-LOS
- Weight (lbs)	99.8	56
- Range (km) (Direct Fire)	[Deleted]	3.75
- Range (km) (Indirect Fire)	[Deleted]	N/A
- Diameter (in)	7	5.8
- Length (in)	64	45.8
- Penetration of RHA* (in)	[Deleted]	[Deleted]

*RHA: Rolled homogeneous armor.

QUESTION: How does the Army plan to train its crews to use the HELLFIRE Missile without live firings? Will it be by simulator? If so, will the simulator be ready by the time the HELLFIRE missile is ready for deployment?

ANSWER: The critical pre-launch skills of locating and tracking targets and the post-launch skills of laser-designating targets can be acquired without live-fire. When units receive the HELLFIRE system, they will also be issued the tracking head trainer, an inert practice missile which has the same weight and active "seeker" as the HELLFIRE itself. Crews will be able to practice all requisite HELLFIRE gunnery skills while flying the actual helicopter and operating the other on-board equipment. A few live-firings will still be required to maintain confidence that the HELLFIRE system actually works.

QUESTION: Has the Army considered employment of the Hellfire on other platforms such as Blackhawk, the AH-1S Cobra or by ground launchers?

ANSWER: The Army is exploring several alternative system uses and operational concepts for the Hellfire. At this time, requirements for alternative platforms do not exist.

LAW

QUESTION: There was a product-improvement program to increase the capability for the LAW round which is currently in the Army inventory. Does the program continue to show promise?

ANSWER: An unsolicited proposal to improve the M72 series LAW was provided the Army in October 1981 by a consortium consisting of A/S Raufoss, Norris Industries, Talley Industries, and TRACOR MBA. The proposal promises increased performance in the areas of velocity, penetration, and probability of hit. The evaluation of the proposal by the Army indicated it offered significant improvement of M72 A3 LAW performance at relatively low risk. However, the Army believes that funding the A/S Raufoss proposed product improvement would be unfair to other competitors in light of Congressional direction to evaluate available antiarmor systems, foreign and domestic. Such action could result in protests with a resultant determination of unfair competitive advantage. Accordingly, Raufoss has been encouraged to enter their proposed product improved LAW in the Congressionally directed evaluation. The Army advertised its intent to procure rounds for the evaluation in a Commerce Business Daily notice on 14 May. A Request For Proposal (RFP) will be issued on 15 June to offerers showing an interest. The Army expects Raufoss to respond to the RFP.

SUBCOMMITTEE RECESS

Senator **STEVENS**. We do thank you for your attendance and appreciate your comments this morning. Thank you all.

General **SHERIDAN**. Thank you very much, Mr. Chairman.

Senator **STEVENS**. We will stand in recess until Tuesday, May 25, when we are going to go to the alternative fighter engine.

[Whereupon, at 11:55 a.m. Thursday, May 20, the subcommittee was recessed to reconvene Tuesday, May 25, 1982.]

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